

PMT 90-S002H

Live Training Engagement Simulation Systems (LTESS)

Multiple Integrated Laser Engagement System (MILES)

Communication Code (MCC)

Updated 1 December 2003



PROGRAM EXECUTIVE OFFICE for SIMULATION, TRAINING, & INSTRUMENTATION
(PEO STRI)

(Supercedes previous version of the Miles Communication Code (MCC) PMT 90-S002G standard)

Revision Page

Changes from PMT 90-S002 Version "G" to PMT 03001H

- 1 All applicable pages (Global Change): MCC97 was changed to "MCC".
- 2 All applicable pages (Global Change): Fixed formatting errors.
- 3 All applicable pages (Global Change): Document was reviewed and the forces BLUEFOR (even) or OPFOR (odd) were used exclusively for clarity.
- 4 Title Page: Changed document number from PMT 90-S002G to PMT 90-S002H.
- 5 Title Page: Deleted "97" from MCC 97.
- 6 Title Page: Changed date from 23 March 2001 to 1 December 2003.
- 7 Page 2: Added Table of Contents.
- 8 Page 3 Scope: Changed MCC Standard to LTESST Standard and identify the new scope of the document to cover more than just MILES.
- 9 Pages 4-7: Adjusted the bit numbering sequence (time slots) from 0-15 to 1-16 and associated verbiage to more correctly reflect usage. Adjusted Figure 1 and 2 to reflect change.
- 10 Section 3.1 - Administrative functions: Eliminated Data Download Command and Data Upload Command and renumbered.
- 11 Figure 1: Changed 3.67 to 3.667, and 333.33 to 333.3, for correctness, Also changed the numbers in the text 3.2.1.1 for correctness.
- 12 In 3.2.1.2: Removed "electronic pulse" and "ultrasound pulse" as examples due to incorrectness.
- 13 3.2.1.2.1: Removed "Certain Administrative Function Code Words may have weight less then 10" as this is no longer true.
- 14 Reference 3.2.1.3.1 and appendix A: Added an "x" to heading under Basic Miles code bit pattern entry to make the two section compatible.
- 15 Section 3.2.2.4: Removed "Ammunition Upload" and "Communications Kill" from administrative functions.
- 16 Section 3.2.3.2: Changed "ICS is less then" to IGS may be equal to or less then"
- 17 Section 3.2.3.4: Changed reworded the administrative function routine description for clarity.
- 18 Figure 7: Modified to more clearly resemble the function.
- 19 Page 5 – Section 3.2.1.2.1 – Last Sentence: Changed to refer to Appendix F rather than E.
- 20 Page 7 – Para 3.2.1.4 (5): Replaced "that is has been killed" to "that it has been killed".
- 21 Page 13 – Section 3.2.3.4: Changed to refer to Appendix F rather than E
- 22 Section 4.3: Changed wording for clarity only.
- 23 Section 4.4: Added the one bit word possibility for decoding purposes.
- 24 Page 14 - Revised Para 6.0: Deleted previous text and added "Refer to Appendix F.
- 25 Page 14 - Revised Para 7.0: Deleted previous text and added "Refer to Appendix F).
- 26 Page 15 – Section 7.0: Changed to refer to Appendix E rather than F
- 27 Pages A1-Rev1: Page numbers changed to reflect Table of Contents, revision pages and appendices.
- 28 Appendix A: Changed "CLAYMORE, M16 MINE" to "CLAYMORE MINE"
- 29 Page A1 – Hit code 15 – Corrected typo "<" changed to ","
- 30 Appendix B: fixed missing date on Line 41, 53, 216, 221.
- 31 Page D1 - Column #2: Changed MILES Code No. 10 number of heavy weapon hit words transmitted from 4 to 8.
- 32 Page D1 -Column #2: Changed MILES Code No. 20 thru' 23 number of heavy weapon hit words transmitted from 2 to 8.
- 33 Page D1 - Column #3, 6 & 9, Row 1: Added a footnote "1" & "2".
- 34 Page D1 - Column #3 & 6, MILES Code # 1 - 23: Delete 500 and add 479-1650.
- 35 Page D1 - Column #9, MILES Code # 24: Delete 479-542 and add 479-1650.
- 36 Page D1 - Column #3 & 6, MILES Code # 25 & 26: Delete 500 and add 479-1650.
- 37 Page D1 - Column #9, MILES Code # 27: Delete 479-542 and add 479-1650.
- 38 Page D1 - Bottom of Page: Added footnote 1. "Multiples of 124.98, 166.67, and 208.3 µs, should be avoided because they are multiples of Bins #6, #8, and #10."
- 39 Page D1 - Bottom of Page: Added footnote 2 "Recommend a value of 1,600 to 1,650 µs for new systems".
- 40 Table D1: Fixed MILES code No. 24 to reflect weapon type.
- 41 Page D2 - Table 2, Column 9, Row 4: Added "(Basic MILES only).
- 42 Table D2: Added time of flight data for TOW missile fly out and variable time of flight.
- 43 Table D3: Fixed column 5 and 8 delays to 1650.
- 44 Appendix E: Replaced with "Ammunition Type Partitioning Assignment Table.

Revision Page

- 45 Appendix E: Indicates use of SABOT and HEAT for Ammo Factors throughout the table
46 Appendix E: Table changes to MILES code 10 for correctness.
47 Appendix F, Changed “Controller Gun Function” to “Function”
48 Appendix F: Column 5, Number of words for Miles code 35, changed from “8” to “Variable”.
49 Appendix F: Changed descriptions in lines 307, 308, and 309 for correctness.
50 Appendix F: Changed 1043-1049 to reflect start day of week to be Sunday.
51 Appendix F: Changed previous Appendix E to Appendix F with added new PID decimals and corresponding MILES XXI functions.
52 Appendix F: Pk Tables inserted in document.
53 Appendix F: Changed Note 2 to reflect section 4.1.
54 Appendix F: Note 5, Deleted.
55 Appendix F: Note 2 Last 6 lines rewritten for clarity.

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1 SCOPE.

The LTESS Standard defines the MILES Communication Code (MCC) Structure for encoding/decoding weapon type, ammunition type, player identification, and weapon/ammunition lethality effects information transported through the MILES intra-system communication channels and interfaces and through interfaces with external systems. The LTESS Standard also delineates other LTESS system structures as they apply to the Live Training environment for devices fielded through PM TRADE.

This Standard supercedes the previous version, entitled "Standard for MILES Communication Code Structure", dated 17 July 2002. The revisions/improvements include the following:

- a. Provides approximately five (5) times more Identification (ID) code capacity to handle Player Identification and weapon ammunition information encoding.
- b. Provides better description of MILES code structure.
- c. Adds Probability of Kill (Pk) tables.
- d. Provides a clear and concise step by step procedure to construct code designators.
- e. Adds encoding/decoding routine for Fire and Forget missile weapons.
- f. Provides design parameters in Appendix D and Appendix F.
- g. Updates systems data and corrects nomenclature for forces designation.

2 REFERENCE DOCUMENTS.

None.

3 REQUIREMENTS.

LTESS Standard has the information content, format, and functions specified herein.

3.1. MCC Encoded Information Content.

MCC contains the following encoded information in its structure:

- a. Weapon type: For example, 120mm Main Tank Gun, TOW Missile, M16 Rifle, etc.
- b. Ammunition type: For example, 120mm Heat Round, TOW II Missile, 50 Cal Round, etc. (Refer to Appendices E & F)
- c. Weapon/Ammunition effects at target as follows:
 - 1. Hit: Heavy weapon class targets with specific degree of lethality effect to be determined by target decoder system.
 - 2. Hit: Light weapon class targets with specific degree of the lethality effect to be determined by target decoder system.
 - 3. Near Miss for heavy weapon class.
 - 4. Near Miss for light weapon class.
- d. Player Identification (PID)
 - 1. Unique identifier for each designated player: man, vehicle, weapon system, organizational unit etc.
 - 2. Friend or Foe designation.
- e. Administrative Function Information:
 - 1. Bore Sight Code.
 - 2. Reset Command.
 - 3. Resurrect Command.
 - 4. Time Synchronization.
 - 5. Other Functions

3.2. MCC Format.

MCC format is a digital bit pattern arranged in a clocked time sequence. The time sequenced bit patterns are organized on basic word units that are assembled into successively larger and more information rich structures as follows:

- a. The MCC Word, hereafter referred to as Word, is the basic bit pattern unit structure.
- b. The Message is a sequence of groups of identical Words. In general, each group will contain an even number of a particular MCC Word. Each group will be separated from the following group by a time delay.
- c. The Routine is a sequence of one or more Messages.

Each successive structure complexity level - Word, Message, Routine - adds additional information for transport to a MCC MILES receiver/decoder.

3.2.1 MCC Word Format.

The Word has a structure format that is detailed in the following paragraphs:

3.2.1.1 Word Time Base.

The Word time base clock rate is 48KHz +/-0.015%. The word time base is partitioned into 11 Time Slots labeled 0, 1, 2, ... 10. The Time Slot duration is 333.3 μ s +/- 0.015% based on the 3KHz sub-harmonic of the 48KHz time base clock. Each Time Slot is further subdivided into 16 time intervals; each referred to as a Bin. The Bins are numbered by convention 1, ... 16. Each Bin has time duration of 20.83 μ s +/- 0.015% based on the fundamental 48KHz-clock frequency. The Word has a total duration of 3.667 ms +/-0.015%. Refer to Figure 1(below).

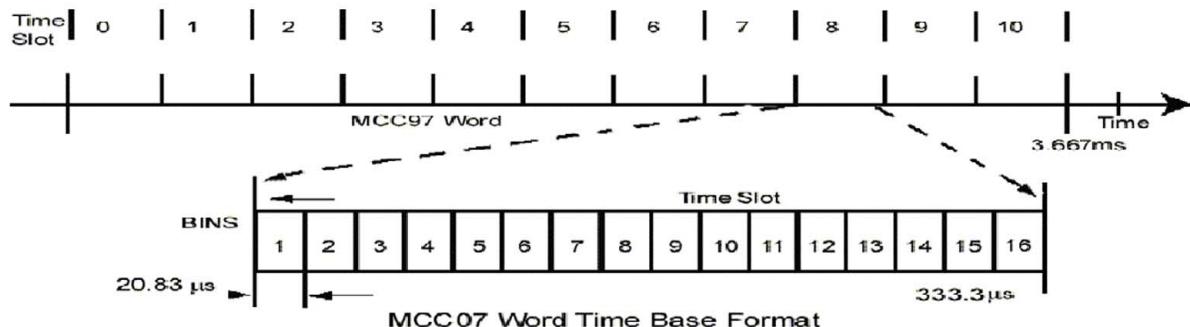


Figure 1

3.2.1.2 Word Digital Bit Format.

The Word is structured using a digital bit format. The bits are precisely positioned on the Word time base. Logic State 1 represents a communication medium activation: for example a laser light pulse. Logic State 0 represents the absence of a communication medium activation. Each Logic State 1 is precisely positioned in a specific Bin in a specific Time Slot.

3.2.1.2.1 Word Bit Weight.

Every MCC Word contains exactly 10 Logic State 1 for a total Word Bit Weight of 10 except the basic MILES Code subset without Player ID. The basic MILES code word is composed of 11 bits with a weight of 6 bits always being Logic State 1 and the remaining 5 bits being Logic State 0. Refer to Appendix A and F.

3.2.1.2.2 Bit Positioning.

Logic State 1 is positioned only in Bin 1, 6, 8, or 10 of a Time Slot and:

- a. A Word will NEVER have a valid Logic State 1 positioned in Bin 2, 3, 4, 5, 7, 9, 11, 12, 13, 14, 15 or 16.
- b. There will NEVER be more than two Logic State 1 in any Time Slot.
- c. A valid Word will ALWAYS have a Logic State 1 in the Bin 1 of its first two Time Slots (Time Slot 0 and Time Slot 1) and a Logic State 0 in Bin 1 of the third Time Slot (Time Slot 2).

3.2.1.3 MCC Word Code Designator.

The MCC Word Code Designator uniquely specifies the exact MCC Word bit pattern positioned in its time base. It has the format X.YZ.SPID where:

- a. **X** is a decimal number from 00 to 36, each of which identifies a specific Basic MILES Code bit pattern as listed in Appendix A. Each Logic State 1 in Appendix A is always positioned in a Bin 1 of any Time Slot of a MCC Word in which it occurs.
- b. **SPID** (Standard Player Identification) is a decimal number from 001 to 330 each of which identifies a specific bit pattern as listed in Appendix B. These bit patterns are used to encode desired Player Identification (PID), Ammunition Type and Friend or Foe designation into the MCC Word. Refer to Paragraph 3.2.1.5.1 for the method to translate any desired Player ID number, ranging from 0001 to 3300, for any specified allowed ammo type into the MCC YZ.SPID portion of the Word Designator.
- c. **Y** is a hexadecimal number, 0 to F, each representing a binary number, 0000 to 1111, in the order most significant digit to least significant digit. A 0 signifies that the Logic State 1 in the SPID bit pattern in that position is located in a Bin 8 of a Time Slot. A 1 signifies that the Logic State 1 in the SPID bit pattern is located in a Bin 6 of a Time Slot. The most significant Y digit applies to the first Logic State 1 of a SPID bit pattern reading from left column to right column (D0 to D10) in Appendix B. The second digit applies to the second Logic State 1, etc.
- d. **Z** is a hexadecimal number, 0 to F, each representing a binary number, 0000 to 1111, in the order most significant digit to least significant digit. A 1 signifies that the binary bit in the SPID bit pattern is positioned in a Bin 10 of a Time Slot superceding the position specified by the Y instruction. A 0 signifies that the bit in the SPID bit pattern remains in the position specified by the Y instruction. The most significant Z digit applies to the first Logic State 1 of a SPID bit pattern reading from left column to right column (D0 to D10) in Appendix B. The second digit applies to the second Logic State 1, etc.

A complete list of the valid MCC PID/Ammo type partition is contained in Appendix C, Table 1, for each X entry in Appendix A. Appendix C, Table 2 specifies Bin positions corresponding to the YZ portion of the Word Designator.

3.2.1.3.1 Example MCC Word Designator Translation to Its Bit Pattern

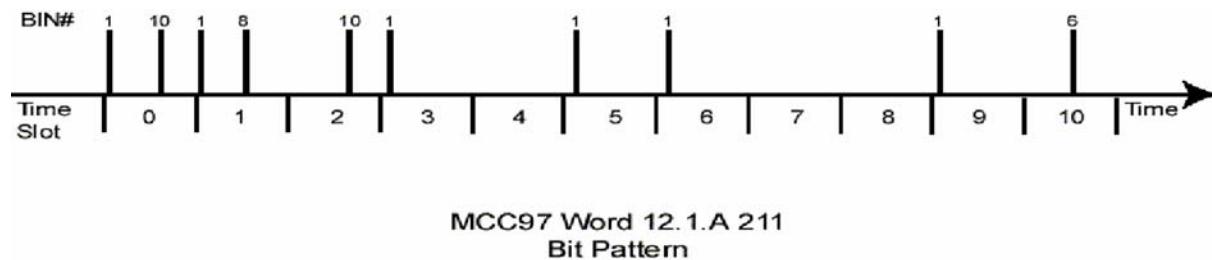


Figure 2

For example, the bit pattern for Word, 12.1A.211, illustrated in Figure 2, translates as follows:

- a. The first two digits, 12, is **X**, the Basic Miles Code bit pattern. Look this up in Appendix A under the entry X = 12. Each Logic State 1 is positioned in Bin 1 of the Time Slot corresponding to its column position in Appendix A. A Logic State 1 in column D0 is positioned in Bin 1 of Word Time Slot 0, etc.
- b. The last three digits, 211, is **SPID**, the bit pattern found in Appendix B under entry 211. Each of the Logic State 1 is positioned in the Time Slot (labeled 0, 1, ... 10) corresponding to the column that the bit occurs (labeled D0, D1, ...D10). Each bit is precisely positioned in either Bin 6, Bin 8, or Bin 10 of its Time Slot according to the instruction contained in the Y and Z hexadecimal code digits of the Word Designator. In this example, the bit pattern specified by 211 has a Logic State 1 in Time Slots 0 (D0), 1(D1), 2(D2), and 10 (D10).
- c. The **Y** hexadecimal digit, 1, converted to binary in the order most significant bit to least is 0001. A 1 signifies that its corresponding Logic State 1 is positioned in Bin 6 of a Time Slot. A 0 signifies that the corresponding bit is positioned in a Bin 8 of its corresponding Time Slot. In this example, the bit in Time Slot 0 is positioned in Bin 8, the bit in Time Slot 1 is in Bin 8, the bit in Time Slot 2 is in Bin 8, and the bit in Time Slot 10 is in Bin 6.
- d. The **Z** hexadecimal digit, A, converted to binary is 1010. A 1 signifies that the corresponding bit is positioned in a Bin 10 of its Time Slot superceding the instruction of the Y hexadecimal digit. A 0 signifies that the corresponding bit remains in the Bin in which it was positioned by the Y hexadecimal digit code instruction. In this example, the bit in Time Slot 0 shifts to Bin 10 and the bit in Time Slot 1 remains in Bin 8, the bit in Time Slot 2 shifts to Bin 10, and bit Time Slot 10 remains in Bin 6. The result is the bit pattern for Word, 12.1A.211, properly structured on its time base shown in Figure 2.

Refer to Appendix C, Table 2 for a list of all valid YZ.SPID Designator SPID bit pattern Bin locations.

3.2.1.4 Information Contained in the X Designator (Basic MILES Code) Bit Patterns, Appendix A.

Information contained in the bit patterns designated by X of the MCC Word Designator X.YZ.SPID falls into one of the following six categories:

- a. **Heavy Weapon Hit:** Informs a target receiver/decoder that the target has been Hit by a heavy weapon/ammunition such as a TOW Missile, 120mm Cannon round, etc. The X designations 01 through 26, 32, 33 or 34 in Appendix A form this category.
- b. **Heavy Weapon Near Miss:** Informs a target receiver/decoder that the target has been engaged by a heavy weapon/ammunition and not Hit, but rather Near Missed. The X designations 28 and 31 in Appendix A form this category.
- c. **Light Weapon Hit:** Informs a target receiver/decoder that the target has been Hit by a light weapon/ammunition such as a M16 Rifle Round, etc. The X designator 27 in Appendix A forms this category.
- d. **Light Weapon Near Miss:** Informs a target receiver/decoder that the target has been engaged by a light weapon/ammunition and not hit, but rather Near Missed. The X designator 29 forms this category.
- e. **Universal Kill:** Informs any target receiver/decoder in the MCC system that it has been killed. This is a 100% administrative kill effect. The X designator 00 forms this category.
- f. **Administrative Functions Codes:** Inform target receiver/decoder of special function information such as Bore Sighting Activity, Reset, Resurrect, Time Synchronization, or other administrative functions. The X designators 30, 35, and 36 form this category.

3.2.1.5 Information Contained in the YZ.SPID Designator.

The information contained in the YZ.SPID portion of the MCC Word Designator includes:

- a. Standard Player ID number. Refer to Appendix B.
- b. Even Player IDs are BLUEFOR; odd are OPFOR by convention. Refer to Appendix C, Table 1.
- c. Ammunition (Ammo) type. Appendix C provides an expansion of Weapon/Ammo types based on those types listed in Appendix A.

3.2.1.5.1 Translation of Desired Player ID and Ammo Type to MCC Word Designator Format.

The following steps translate any valid MCC Player ID number, ranging from 1 to 3300, to the YZ.SPID portion of the MCC Word Designator format. Refer to Appendix C, Table 1. Using Table 1, proceed as follows:

- Step 1: Select BLUEFOR or OPFOR category.
- Step 2: Select the desired ammo type consistent with the selection made in Step 1.
- Step 3: Select the desired Player ID numbers, 1 through 3300 consistent with selection made in Step 2.
- Step 4: Determine the Serial Number consistent with the selections made in the above Steps from Appendix C, Table 1, Column 1, and the corresponding code prefix hexadecimal number resulting in "YZ" from Appendix C, Table 1, Column 2.
- Step 5: Multiply the Serial Number by the number, 330.
- Step 6: Subtract the resulting number from the selected Player ID number. This is the Word Designator SPID number.
- Step 7: The MCC YZ.SPID portion of the Word Designator is the combination of the hexadecimal number determined in Step 3 and the resultant SPID number from Step 6.

Some examples are:

MCC Player ID	Ammo Type	YZ.SPID
2900	Ammo D	1C.260
0001	Ammo H	C0.001
1201	Ammo F	70.211

3.2.2 Message Format.

The Message is structured in time sequence in the most general case with format as follows:

- a. A group of Words containing a number, K, of identical Heavy Weapon Hit Words, where K=0, or multiples of 2.
- b. Followed by a time delay, D1, to prevent code jamming in the decoder system.
- c. Followed by a group Words containing a number, M, of identical Light Weapon Hit Words, where M=0, or multiples of 2.
- d. Followed by a time delay, D2, to prevent code jamming in the decoder system.
- e. Followed by a group of identical Heavy Weapon Near Miss Words, Nh followed by a time delay D3 and/or a group Light Weapon Near Miss Words, Ni where, Nh and/or Ni each or both are 0 or multiples of 2.

The values for each of the Message parameters: K, M, Nh, Ni, D, D1, D2, D3 for a particular application

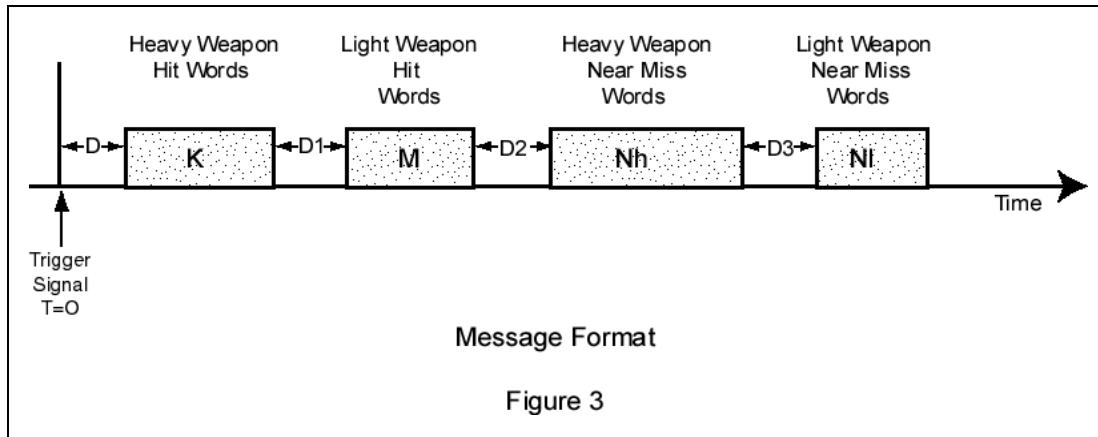


Figure 3

are specified in Appendix D for encoding and/or decoding processing.

3.2.2.1 Direct Fire Weapon Message.

The direct Fire Weapon Message communicates specified information for weapons/ammunitions that are aimed and released at a target with no other further guidance beyond the original release conditions. These are communicated in a message routine format described in paragraph 3.2.3.1. The Direct Fire Weapon Message format is D K D1 M D2 Nh D3 and/or N1. Refer to Figure 3(above).

Refer to Appendix F for Direct Fire Message adaptation for high rate of fire weapons.

3.2.2.2 Guided Missile Weapon Message.

The Guided Missile Weapon Message communicates specified information for weapons/ammunitions that are aimed, released and guided by the operator until the weapon/ammunition makes contact with the target or reaches its maximum time of flight. The Guided Missile Weapon Message format is: K where K contains a specified even number of Words. These are transmitted in a Message Routine format described in Paragraph 3.2.3.2.

3.2.2.3 Fire and Forget Missile Weapon Message.

The Fire and Forget Missile Weapon Message communicates specified information for weapons that are aimed, and released by the operator but then seek a target in the designated target window guided by internal smart or seeker systems. The Fire and Forget Weapon Message format is D K D1 M D2 Nh D3 N1 where K contains a specified even number of Words. These are communicated in a Message Routine format described in Paragraph 3.2.3.3.

3.2.2.4 Administrative Function Messages.

An Administrative Function Message communicates special information and/or administrative command such as a Time Synchronization, Reset, Resurrect, Universal Kill, Bore Sight etc. Each Administrative Function Message has a unique format. In general, each type Administrative Function Message is transmitted in a Message Routine format described in Paragraph 3.2.3.4.

3.2.3 MCC Message Routine Format.

MCC Message Routine format is a series of Messages in a time sequence string. Message Routine types are as follows:

3.2.3.1 Direct Fire Routine (DFR).

The Direct Fire Routines are as follows:

- a. Heavy Weapons Routine Format: The format is: D K D1 M D2 Nh D3 N1. Refer to Figure 3.
- b. Light Weapons Routine: The format is: D M D2 N1.

Refer to Appendix D for encoding and decoding parameter specifications.

3.2.3.2 Guided Missile Routine (GMR).

The Guided Missile Routine starts with a trigger signal followed by an initial time delay D. Next follows the Initial Guidance Sequence (IGS) containing a number, Ig, of Guided Missile Messages (GMM) with a time delay, DA, between each GMM. Then follows the Final Guidance Sequence (FGS) containing a number, Fg, of GMMs spaced with a time delay, DB, between each. Finally, a Light Weapon Hit Message, M, positioned after a time delay of D1 at the end of the sequence completes the GMR. The GMM shall consists of eight (8) Heavy Weapon Hit Words.

In general, the GMR format is: Trigger Signal - D - GMM DA GMM DA (repeated Ig times). - GMM DB GMM DB GMM DB (repeated Fg times) D1 M where GMM is a particular MCC Guided Missile Message and M is a Light Weapon Hit Message. D is an initial time delay; DA and DB are time delays that will be inserted to simulate missile time of flight and missile guidance tracking characteristics.

The two separate GMM sequences, IGS, and FGS, are formulated to accommodate the time of flight and the guidance characteristics of a particular guided missile weapon. Usually, the missile guidance is more critical near the end of the time of flight so that DA is larger than DB and the number, Ig, of GMMs in the IGS may be equal to or less than the number, Fg, of GMMs in the FGS. The MCC decoder must successfully decode a specified number, Gk, of GMMs from the combined IGS and FGS of the total Guided Missile Routine. Refer to Figure 4 (below) for Guided Missile Routine format and to Appendix D for GMR parameter values for a particular Guided Missile Weapon in the MILES system.

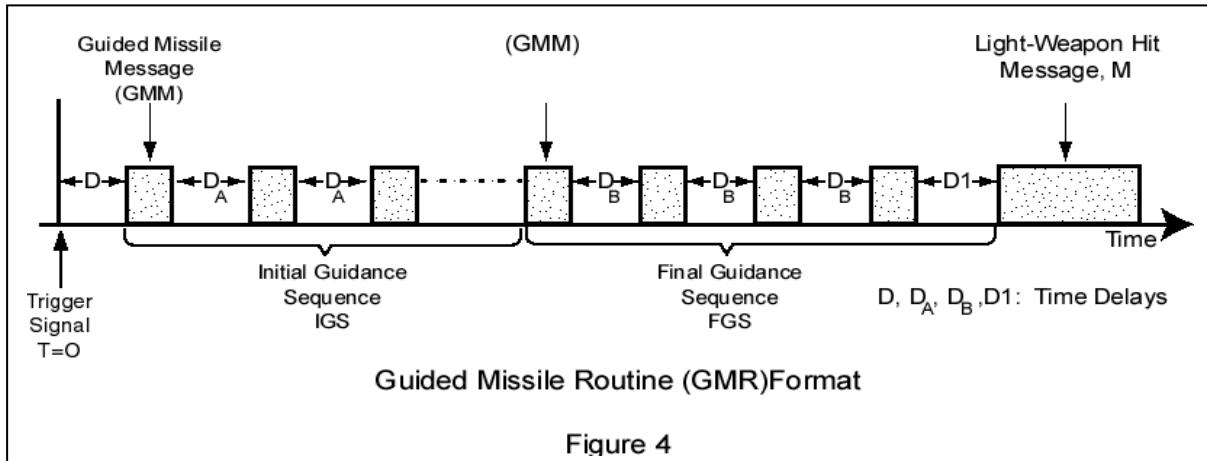
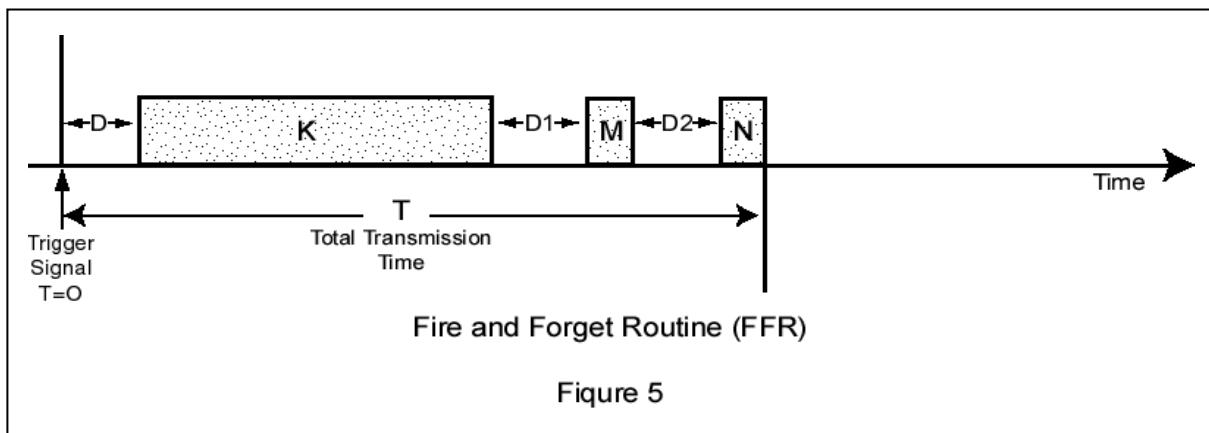


Figure 4

3.2.3.3 Fire and Forget Routine (FFR):

The Fire and Forget Routine is sequence of at least two MCC Code 09 Heavy Weapon Hit Words with the possibility of having the maximum even number of K Words with or without any time delays between. This is followed by a group of M Light Weapon Hit Words, where M =0 or multiples of 2, with or without a time delay D1.

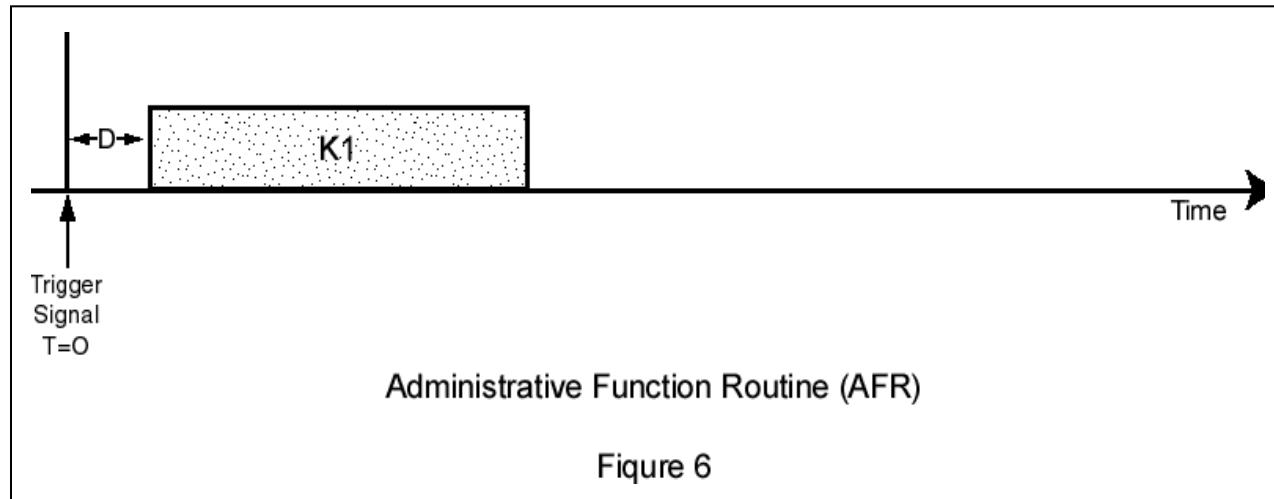


This is followed by a group of N near miss words, where N =0 or multiples of 2, with or without a time delay D2. The transmission time will not exceed a total of T seconds per trigger pull. Refer to Figure 5 (above) for Fire and Forget Routine format and to Appendix D for encoding and decoding parameter values for K, D1, M, D2, N and T.

3.2.3.4 Administrative Function Routine (AFR):

The Administrative Function Routine is unique for each administrative function. An Administrative Function Routine for functions other than “Boresight” may have a trigger signal and a time delay as indicated. The time delay may be greater than or equal to 0. Next follows a group of K1 Administrative Function Words, where K1 is a multiple of 2.

Refer to figure 6 and Appendix F for AFR encoding and decoding parameter values for K1.



An administrative Function Routine for “Boresight” function is a continuous transmission data bit pattern shown in Appendix A.

4 MCC Routine Decoding Scheme.

The MCC Routine Decoding Scheme requires MCC Word reception and decoding as follows:

4.1. Direct Fire Weapon Routine (DFR) Decoding.

The DFR decoding scheme requires the reception for decoding the number of Words per Direct Fire Weapon Message as follows.

Vehicle Target Systems: Two (2) Hit Words or two (2) Near Miss Words within an eight (8) Word time period for all MILES codes as listed in Appendix A.

Man Worn & Crew Served Weapon-Target Systems: Either One (1) Hit word or One (1) Near Miss Word within an eight (8) Word time period for MILES Codes 00,24,27,29,30,35, and 36 as listed in Appendix A. Or either Two (2) Hit Words or two (2) Near Miss Word within an eight (8) Word time period for all other MILES codes as listed in Appendix A

Refer to Appendix F for Lethality Effects Assessment Routine.

4.2. Guided Missile Routine (GMR) Decoding.

The GMR decoding scheme is triggered by the reception and decoding of the first Guided Missile Word in a GMM. Refer to Figure 4. This event initiates a tracking interval time window for decoding the instant GMR which is T seconds long as specified as a design parameter for a specified guided missile weapon in Appendix D. The GMR has

$I_g + F_g$ total GMMs available for decoding during tracking interval T. The GMR decoding scheme permits only one Word decoding per GMM. As soon as a Word is successfully decoded in a GMM, an inhibit for a time period equivalent to one GMM (TGMM) is imposed to prevent any further Word decoding during that period. Refer to Figure 7 (below).

An accumulation of a total of G_k GMMS during the tracking time T is required to trigger a Hit evaluation response. An accumulation of 2 through G_k-1 decoded GMMS will result in a Near Miss evaluation response. Refer to Appendix F for Lethality Effects Assessment Routine.

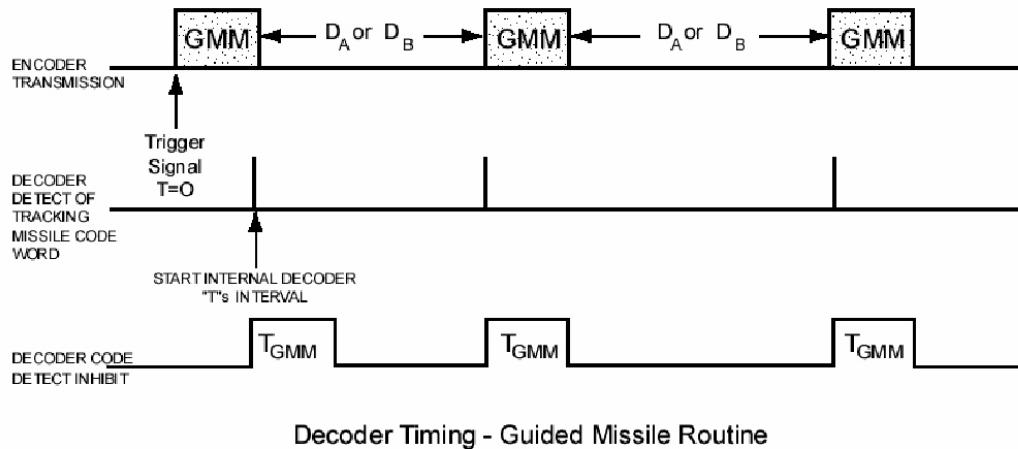


Figure 7

4.3. Fire and Forget Missile Routine (FFR) Decoding.

The FFR missile-decoding scheme is triggered by the reception and decoding of the first Fire and Forget Weapon Word. This event initiates a decoding window of two second. The successful decoding of N Fire and Forget Words accumulated in the decoding window will result in a hit evaluation response. The accumulation of fewer than N decoded Words during period of two seconds or the reception of a near miss Word in the absence of a decoded hit Word during the two second window will result in a near miss evaluation. The design parameters N for a specified Fire and Forget Weapon are listed in Appendix D.

Refer to Appendix F for Lethal Effects Assessment Routine.

4.4. Administrative Function Routine (AFR) Decoding.

The AFR decoding scheme for functions other than “Boresight” may require the decoding of one (1) or two (2) Administrative Hit Words within an eight (8) Word time period.

5 Lethality Effects Assessment Routine and Tables.

Refer to Appendix F.

6 Probability of Kill (Pk) Charts.

Refer to Appendix F.

7 Ammo Type Partitioning Assignment Table.

Refer to Appendix E & F.

APPENDIX A

TABLE A1: BASIC MILES CODE STRUCTURE

0 1 2	3 4 5 6	7 8 9 1 0	BASIC MILES CODE(x) NO.	WEAPON/FUNCTION
1 1 0	0 0 1 0	1 1 0 1	00	UNIV. KILL
1 1 0	1 0 0 1	0 0 1 1	01	HELLFIRE
1 1 0	0 0 1 1	0 1 0 1	02	UNASSIGNED
1 1 0	0 0 1 0	1 0 1 1	03	AT-3
1 1 0	0 1 0 1	0 0 1 1	04	UNASSIGNED
1 1 0	1 0 1 0	1 0 0 1	05	UNASSIGNED
1 1 0	0 1 1 0	0 1 0 1	06	UNASSIGNED
1 1 0	1 1 0 1	1 0 0 0	07	TOW, AT-5 (KONKURZ)
1 1 0	1 0 1 1	0 1 0 0	08	DRAGON
1 1 0	1 1 0 0	1 0 0 1	09	FIRE & FORGET MISSILES
1 1 0	0 1 1 0	1 0 0 1	10	125MM
1 1 0	0 1 0 0	1 0 1 1	11	CLAYMORE MINE
1 1 0	1 0 1 1	0 0 1 0	12	105MM HIT
1 1 0	1 1 0 0	1 0 1 0	13	122MM ARTY DF
1 1 0	0 1 0 1	1 0 0 1	14	73MM, 2.75" ROCKET, 57MM
1 1 0	1 0 1 0	1 1 0 0	15	VIPER, RPG-7, CARL GUSTAV, AT-4
1 1 0	0 1 0 1	0 1 0 1	16	120MM
1 1 0	1 0 0 1	0 1 0 1	17	90MM
1 1 0	0 1 1 0	0 0 1 1	18	152MM, 155MM
1 1 0	1 0 1 1	0 0 0 1	19	40MM GRENADE
1 1 0	1 1 0 0	0 1 0 1	20	ROCKEYE, SMAW
1 1 0	1 1 0 1	0 1 0 0	21	30MM, GAU-8
1 1 0	0 0 1 1	0 0 1 1	22	25MM, ZSU-23/4
1 1 0	1 0 0 0	1 0 1 1	23	30MM (NTC HIND-D), VULCAN
1 1 0	0 0 0 1	0 1 1 1	24	HEAVY MG (M2, M85)
1 1 0	1 0 0 0	1 1 0 1	25	CHAPARRAL, SAM
1 1 0	0 1 0 0	1 1 0 1	26	STINGER
1 1 0	0 1 0 0	0 1 1 1	27	SMALL ARMS (M16, M60 MG, COAX)
1 1 0	1 1 1 0	0 0 0 1	28	HEAVY WEAPON MISS
1 1 0	0 0 1 0	0 1 1 1	29	LIGHT WEAPON MISS
1 1 0	1 0 0 0	0 1 1 1	30	RESET FOR AIRCRAFT SYSTEMS, RESURRECT FOR GROUND SYSTEMS
1 1 0	1 0 1 0	0 0 1 1	31	HEAVY SPARE MISS
1 1 0	1 0 0 1	1 0 0 1	32	RF SAM
1 1 0	1 0 1 0	0 1 0 1	33	SA-14
1 1 0	1 1 0 0	0 0 1 1	34	AAA-2 30MM
1 1 0	0 0 0 1	1 0 1 1	35	CONTROLLER GUN UTILITY CODES
1 1 0	1 1 0 1	0 0 0 1	36	RESET FOR GROUND SYSTEMS, RESURRECT FOR AIRCRAFT SYSTEMS
1 0 0	0 0 1 0	0 0 0 1		BORESCOPE (Continuous Transmission)

*NOT USED IN STANDARD MILES EQUIPMENT MILES BORESCOPE CODE STRUCTURE

APPENDIX B

TABLE B1: STANDARD MILES PLAYER ID (SPID) CODE ASSIGNMENTS

PLAYER ID	D0	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10
1	1	1	1	1	0	0	0	0	0	0	0
2	1	1	1	0	1	0	0	0	0	0	0
3	1	1	0	1	1	0	0	0	0	0	0
4	1	0	1	1	1	0	0	0	0	0	0
5	0	1	1	1	1	0	0	0	0	0	0
6	1	1	1	0	0	1	0	0	0	0	0
7	1	1	0	1	0	1	0	0	0	0	0
8	1	0	1	1	0	1	0	0	0	0	0
9	0	1	1	1	0	1	0	0	0	0	0
10	1	1	0	0	1	1	0	0	0	0	0
11	1	0	1	0	1	1	0	0	0	0	0
12	0	1	1	0	1	1	0	0	0	0	0
13	1	0	0	1	1	1	0	0	0	0	0
14	0	1	0	1	1	1	0	0	0	0	0
15	0	0	1	1	1	1	0	0	0	0	0
16	1	1	1	0	0	0	1	0	0	0	0
17	1	1	0	1	0	0	1	0	0	0	0
18	1	0	1	1	0	0	1	0	0	0	0
19	0	1	1	1	0	0	1	0	0	0	0
20	1	1	0	0	1	0	1	0	0	0	0
21	1	0	1	0	1	0	1	0	0	0	0
22	0	1	1	0	1	0	1	0	0	0	0
23	1	0	0	1	1	0	1	0	0	0	0
24	0	1	0	1	1	0	1	0	0	0	0
25	0	0	1	1	1	0	1	0	0	0	0
26	1	1	0	0	0	1	1	0	0	0	0
27	1	0	1	0	0	1	1	0	0	0	0
28	0	1	1	0	0	1	1	0	0	0	0
29	1	0	0	1	0	1	1	0	0	0	0
30	0	1	0	1	0	1	1	0	0	0	0
31	0	0	1	1	0	1	1	0	0	0	0
32	1	0	0	0	1	1	1	0	0	0	0
33	0	1	0	0	1	1	1	0	0	0	0
34	0	0	1	0	1	1	1	0	0	0	0
35	0	0	0	1	1	1	1	0	0	0	0
36	1	1	1	0	0	0	0	1	0	0	0
37	1	1	0	1	0	0	0	1	0	0	0
38	1	0	1	1	0	0	0	1	0	0	0
39	0	1	1	1	0	0	0	1	0	0	0
40	1	1	0	0	1	0	0	1	0	0	0
41	1	0	1	0	1	0	0	1	0	0	0
42	0	1	1	0	1	0	0	1	0	0	0
43	1	0	0	1	1	0	0	1	0	0	0
44	0	1	0	1	1	0	0	1	0	0	0
45	0	0	1	1	1	0	0	1	0	0	0
46	1	1	0	0	0	1	0	1	0	0	0
47	1	0	1	0	0	1	0	1	0	0	0
48	0	1	1	0	0	1	0	1	0	0	0
49	1	0	0	1	0	1	0	1	0	0	0
50	0	1	0	1	0	1	0	1	0	0	0

APPENDIX B

PLAYER ID	D0	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10
51	0	0	1	1	0	1	0	1	0	0	0
52	1	0	0	0	1	1	0	1	0	0	0
53	0	1	0	0	1	1	0	1	0	0	0
54	0	0	1	0	1	1	0	1	0	0	0
55	0	0	0	1	1	1	0	1	0	0	0
56	1	1	0	0	0	0	1	1	0	0	0
57	1	0	1	0	0	0	1	1	0	0	0
58	0	1	1	0	0	0	1	1	0	0	0
59	1	0	0	1	0	0	1	1	0	0	0
60	0	1	0	1	0	0	1	1	0	0	0
61	0	0	1	1	0	0	1	1	0	0	0
62	1	0	0	0	1	0	1	1	0	0	0
63	0	1	0	0	1	0	1	1	0	0	0
64	0	0	1	0	1	0	1	1	0	0	0
65	0	0	0	1	1	0	1	1	0	0	0
66	1	0	0	0	0	1	1	1	0	0	0
67	0	1	0	0	0	1	1	1	0	0	0
68	0	0	1	0	0	1	1	1	0	0	0
69	0	0	0	1	0	1	1	1	0	0	0
70	0	0	0	0	1	1	1	1	0	0	0
71	1	1	1	0	0	0	0	0	1	0	0
72	1	1	0	1	0	0	0	0	1	0	0
73	1	0	1	1	0	0	0	0	1	0	0
74	0	1	1	1	0	0	0	0	1	0	0
75	1	1	0	0	1	0	0	0	1	0	0
76	1	0	1	0	1	0	0	0	1	0	0
77	0	1	1	0	1	0	0	0	1	0	0
78	1	0	0	1	1	0	0	0	1	0	0
79	0	1	0	1	1	0	0	0	1	0	0
80	0	0	1	1	1	0	0	0	1	0	0
81	1	1	0	0	0	1	0	0	1	0	0
82	1	0	1	0	0	1	0	0	1	0	0
83	0	1	1	0	0	1	0	0	1	0	0
84	1	0	0	1	0	1	0	0	1	0	0
85	0	1	0	1	0	1	0	0	1	0	0
86	0	0	1	1	0	1	0	0	1	0	0
87	1	0	0	0	1	1	0	0	1	0	0
88	0	1	0	0	1	1	0	0	1	0	0
89	0	0	1	0	1	1	0	0	1	0	0
90	0	0	0	1	1	1	0	0	1	0	0
91	1	1	0	0	0	0	1	0	1	0	0
92	1	0	1	0	0	0	1	0	1	0	0
93	0	1	1	0	0	0	1	0	1	0	0
94	1	0	0	1	0	0	1	0	1	0	0
95	0	1	0	1	0	0	1	0	1	0	0
96	0	0	1	1	0	0	1	0	1	0	0
97	1	0	0	0	1	0	1	0	1	0	0
98	0	1	0	0	1	0	1	0	1	0	0
99	0	0	1	0	1	0	1	0	1	0	0
100	0	0	0	1	1	0	1	0	1	0	0
101	1	0	0	0	0	1	1	0	1	0	0

APPENDIX B

PLAYER ID	D0	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10
102	0	1	0	0	0	1	1	0	1	0	0
103	0	0	1	0	0	1	1	0	1	0	0
104	0	0	0	1	0	1	1	0	1	0	0
105	0	0	0	0	1	1	1	0	1	0	0
106	1	1	0	0	0	0	0	1	1	0	0
107	1	0	1	0	0	0	0	1	1	0	0
108	0	1	1	0	0	0	0	1	1	0	0
109	1	0	0	1	0	0	0	1	1	0	0
110	0	1	0	1	0	0	0	1	1	0	0
111	0	0	1	1	0	0	0	1	1	0	0
112	1	0	0	0	1	0	0	1	1	0	0
113	0	1	0	0	1	0	0	1	1	0	0
114	0	0	1	0	1	0	0	1	1	0	0
115	0	0	0	1	1	0	0	1	1	0	0
116	1	0	0	0	0	1	0	1	1	0	0
117	0	1	0	0	0	1	0	1	1	0	0
118	0	0	1	0	0	1	0	1	1	0	0
119	0	0	0	1	0	1	0	1	1	0	0
120	0	0	0	0	1	1	0	1	1	0	0
121	1	0	0	0	0	0	1	1	1	0	0
122	0	1	0	0	0	0	1	1	1	0	0
123	0	0	1	0	0	0	1	1	1	0	0
124	0	0	0	1	0	0	1	1	1	0	0
125	0	0	0	0	1	0	1	1	1	0	0
126	0	0	0	0	0	1	1	1	1	0	0
127	1	1	1	0	0	0	0	0	0	1	0
128	1	1	0	1	0	0	0	0	0	1	0
129	1	0	1	1	0	0	0	0	0	1	0
130	0	1	1	1	0	0	0	0	0	1	0
131	1	1	0	0	1	0	0	0	0	1	0
132	1	0	1	0	1	0	0	0	0	1	0
133	0	1	1	0	1	0	0	0	0	1	0
134	1	0	0	1	1	0	0	0	0	1	0
135	0	1	0	1	1	0	0	0	0	1	0
136	0	0	1	1	1	0	0	0	0	1	0
137	1	1	0	0	0	1	0	0	0	1	0
138	1	0	1	0	0	1	0	0	0	1	0
139	0	1	1	0	0	1	0	0	0	1	0
140	1	0	0	1	0	1	0	0	0	1	0
141	0	1	0	1	0	1	0	0	0	1	0
142	0	0	1	1	0	1	0	0	0	1	0
143	1	0	0	0	1	1	0	0	0	1	0
144	0	1	0	0	1	1	0	0	0	1	0
145	0	0	1	0	1	1	0	0	0	1	0
146	0	0	0	1	1	1	0	0	0	1	0
147	1	1	0	0	0	0	1	0	0	1	0
148	1	0	1	0	0	0	1	0	0	1	0
149	0	1	1	0	0	0	1	0	0	1	0
150	1	0	0	1	0	0	1	0	0	1	0
151	0	1	0	1	0	0	1	0	0	1	0
152	0	0	1	1	0	0	1	0	0	1	0

APPENDIX B

PLAYER ID	D0	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10
153	1	0	0	0	1	0	1	0	0	1	0
154	0	1	0	0	1	0	1	0	0	1	0
155	0	0	1	0	1	0	1	0	0	1	0
156	0	0	0	1	1	0	1	0	0	1	0
157	1	0	0	0	0	1	1	0	0	1	0
158	0	1	0	0	0	1	1	0	0	1	0
159	0	0	1	0	0	1	1	0	0	1	0
160	0	0	0	1	0	1	1	0	0	1	0
161	0	0	0	0	1	1	1	0	0	1	0
162	1	1	0	0	0	0	0	1	0	1	0
163	1	0	1	0	0	0	0	1	0	1	0
164	0	1	1	0	0	0	0	1	0	1	0
165	1	0	0	1	0	0	0	1	0	1	0
166	0	1	0	1	0	0	0	1	0	1	0
167	0	0	1	1	0	0	0	1	0	1	0
168	1	0	0	0	1	0	0	1	0	1	0
169	0	1	0	0	1	0	0	1	0	1	0
170	0	0	1	0	1	0	0	1	0	1	0
171	0	0	0	1	1	0	0	1	0	1	0
172	1	0	0	0	0	1	0	1	0	1	0
173	0	1	0	0	0	1	0	1	0	1	0
174	0	0	1	0	0	1	0	1	0	1	0
175	0	0	0	1	0	1	0	1	0	1	0
176	0	0	0	0	1	1	0	1	0	1	0
177	1	0	0	0	0	0	1	1	0	1	0
178	0	1	0	0	0	0	1	1	0	1	0
179	0	0	1	0	0	0	1	1	0	1	0
180	0	0	0	1	0	0	1	1	0	1	0
181	0	0	0	0	1	0	1	1	0	1	0
182	0	0	0	0	0	1	1	1	0	1	0
183	1	1	0	0	0	0	0	0	1	1	0
184	1	0	1	0	0	0	0	0	1	1	0
185	0	1	1	0	0	0	0	0	1	1	0
186	1	0	0	1	0	0	0	0	1	1	0
187	0	1	0	1	0	0	0	0	1	1	0
188	0	0	1	1	0	0	0	0	1	1	0
189	1	0	0	0	1	0	0	0	1	1	0
190	0	1	0	0	1	0	0	0	1	1	0
191	0	0	1	0	1	0	0	0	1	1	0
192	0	0	0	1	1	0	0	0	1	1	0
193	1	0	0	0	0	1	0	0	1	1	0
194	0	1	0	0	0	1	0	0	1	1	0
195	0	0	1	0	0	1	0	0	1	1	0
196	0	0	0	1	0	1	0	0	1	1	0
197	0	0	0	0	1	1	0	0	1	1	0
198	1	0	0	0	0	0	1	0	1	1	0
199	0	1	0	0	0	0	1	0	1	1	0
200	0	0	1	0	0	0	1	0	1	1	0
201	0	0	0	1	0	0	1	0	1	1	0
202	0	0	0	0	1	0	1	0	1	1	0
203	0	0	0	0	0	1	1	0	1	1	0

APPENDIX B

PLAYER ID	D0	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10
204	1	0	0	0	0	0	1	1	1	0	
205	0	1	0	0	0	0	1	1	1	0	
206	0	0	1	0	0	0	0	1	1	1	0
207	0	0	0	1	0	0	0	1	1	1	0
208	0	0	0	0	1	0	0	1	1	1	0
209	0	0	0	0	0	1	0	1	1	1	0
210	0	0	0	0	0	0	1	1	1	1	0
211	1	1	1	0	0	0	0	0	0	0	1
212	1	1	0	1	0	0	0	0	0	0	1
213	1	0	1	1	0	0	0	0	0	0	1
214	0	1	1	1	0	0	0	0	0	0	1
215	1	1	0	0	1	0	0	0	0	0	1
216	1	0	1	0	1	0	0	0	0	0	0
217	0	1	1	0	1	0	0	0	0	0	1
218	1	0	0	1	1	0	0	0	0	0	1
219	0	1	0	1	1	0	0	0	0	0	1
220	0	0	1	1	1	0	0	0	0	0	1
221	1	1	0	0	0	1	0	0	0	0	1
222	1	0	1	0	0	1	0	0	0	0	1
223	0	1	1	0	0	1	0	0	0	0	1
224	1	0	0	1	0	1	0	0	0	0	1
225	0	1	0	1	0	1	0	0	0	0	1
226	0	0	1	1	0	1	0	0	0	0	1
227	1	0	0	0	1	1	0	0	0	0	1
228	0	1	0	0	1	1	0	0	0	0	1
229	0	0	1	0	1	1	0	0	0	0	1
230	0	0	0	1	1	1	0	0	0	0	1
231	1	1	0	0	0	0	1	0	0	0	1
232	1	0	1	0	0	0	1	0	0	0	1
233	0	1	1	0	0	0	1	0	0	0	1
234	1	0	0	1	0	0	1	0	0	0	1
235	0	1	0	1	0	0	1	0	0	0	1
236	0	0	1	1	0	0	1	0	0	0	1
237	1	0	0	0	1	0	1	0	0	0	1
238	0	1	0	0	1	0	1	0	0	0	1
239	0	0	1	0	1	0	1	0	0	0	1
240	0	0	0	1	1	0	1	0	0	0	1
241	1	0	0	0	0	1	1	0	0	0	1
242	0	1	0	0	0	1	1	0	0	0	1
243	0	0	1	0	0	1	1	0	0	0	1
244	0	0	0	1	0	1	1	0	0	0	1
245	0	0	0	0	1	1	1	0	0	0	1
246	1	1	0	0	0	0	0	1	0	0	1
247	1	0	1	0	0	0	0	1	0	0	1
248	0	1	1	0	0	0	0	1	0	0	1
249	1	0	0	1	0	0	0	1	0	0	1
250	0	1	0	1	0	0	0	1	0	0	1
251	0	0	1	1	0	0	0	1	0	0	1
252	1	0	0	0	1	0	0	1	0	0	1
253	0	1	0	0	1	0	0	1	0	0	1
254	0	0	1	0	1	0	0	1	0	0	1

APPENDIX B

PLAYER ID	D0	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10
255	0	0	0	1	1	0	0	1	0	0	1
256	1	0	0	0	0	1	0	1	0	0	1
257	0	1	0	0	0	1	0	1	0	0	1
258	0	0	1	0	0	1	0	1	0	0	1
259	0	0	0	1	0	1	0	1	0	0	1
260	0	0	0	0	1	1	0	1	0	0	1
261	1	0	0	0	0	0	1	1	0	0	1
262	0	1	0	0	0	0	1	1	0	0	1
263	0	0	1	0	0	0	1	1	0	0	1
264	0	0	0	1	0	0	1	1	0	0	1
265	0	0	0	0	1	0	1	1	0	0	1
266	0	0	0	0	0	1	1	1	0	0	1
267	1	1	0	0	0	0	0	0	1	0	1
268	1	0	1	0	0	0	0	0	1	0	1
269	0	1	1	0	0	0	0	0	1	0	1
270	1	0	0	1	0	0	0	0	1	0	1
271	0	1	0	1	0	0	0	0	1	0	1
272	0	0	1	1	0	0	0	0	1	0	1
273	1	0	0	0	1	0	0	0	1	0	1
274	0	1	0	0	1	0	0	0	1	0	1
275	0	0	1	0	1	0	0	0	1	0	1
276	0	0	0	1	1	0	0	0	1	0	1
277	1	0	0	0	0	1	0	0	1	0	1
278	0	1	0	0	0	1	0	0	1	0	1
279	0	0	1	0	0	1	0	0	1	0	1
280	0	0	0	1	0	1	0	0	1	0	1
281	0	0	0	0	1	1	0	0	1	0	1
282	1	0	0	0	0	0	1	0	1	0	1
283	0	1	0	0	0	0	1	0	1	0	1
284	0	0	1	0	0	0	1	0	1	0	1
285	0	0	0	1	0	0	1	0	1	0	1
286	0	0	0	0	1	0	1	0	1	0	1
287	0	0	0	0	0	1	1	0	1	0	1
288	1	0	0	0	0	0	0	1	1	0	1
289	0	1	0	0	0	0	0	1	1	0	1
290	0	0	1	0	0	0	0	1	1	0	1
291	0	0	0	1	0	0	0	1	1	0	1
292	0	0	0	0	1	0	0	1	1	0	1
293	0	0	0	0	0	1	0	1	1	0	1
294	0	0	0	0	0	0	1	1	1	0	1
295	1	1	0	0	0	0	0	0	0	1	1
296	1	0	1	0	0	0	0	0	0	1	1
297	0	1	1	0	0	0	0	0	0	1	1
298	1	0	0	1	0	0	0	0	0	1	1
299	0	1	0	1	0	0	0	0	0	1	1
300	0	0	1	1	0	0	0	0	0	1	1
301	1	0	0	0	1	0	0	0	0	1	1
302	0	1	0	0	1	0	0	0	0	1	1
303	0	0	1	0	1	0	0	0	0	1	1
304	0	0	0	1	1	0	0	0	0	1	1
305	1	0	0	0	0	1	0	0	0	1	1

APPENDIX B

PLAYER ID	D0	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10
306	0	1	0	0	0	1	0	0	0	1	1
307	0	0	1	0	0	1	0	0	0	1	1
308	0	0	0	1	0	1	0	0	0	1	1
309	0	0	0	0	1	1	0	0	0	1	1
310	1	0	0	0	0	0	1	0	0	1	1
311	0	1	0	0	0	0	1	0	0	1	1
312	0	0	1	0	0	0	1	0	0	1	1
313	0	0	0	1	0	0	1	0	0	1	1
314	0	0	0	0	1	0	1	0	0	1	1
315	0	0	0	0	0	1	1	0	0	1	1
316	1	0	0	0	0	0	0	1	0	1	1
317	0	1	0	0	0	0	0	1	0	1	1
318	0	0	1	0	0	0	0	1	0	1	1
319	0	0	0	1	0	0	0	1	0	1	1
320	0	0	0	0	1	0	0	1	0	1	1
321	0	0	0	0	0	1	0	1	0	1	1
322	0	0	0	0	0	0	1	1	0	1	1
323	1	0	0	0	0	0	0	0	1	1	1
324	0	1	0	0	0	0	0	0	1	1	1
325	0	0	1	0	0	0	0	0	1	1	1
326	0	0	0	1	0	0	0	0	1	1	1
327	0	0	0	0	1	0	0	0	1	1	1
328	0	0	0	0	0	1	0	0	1	1	1
329	0	0	0	0	0	0	1	0	1	1	1
330	0	0	0	0	0	0	0	1	1	1	1
END											

APPENDIX C

TABLE C1: MCC CODE PID/AMMO TYPE PARTITION

Serial Number	CODE PREFIX (HEXA-DECIMAL) "YZ"	CODE PREFIX (BINARY)	AMMO TYPE (BLUEFOR)	BLUEFORCE PLAYER ID (EVEN ONLY)	OPFOR PLAYER ID (ODD ONLY)	AMMO TYPE (OPFOR)
0	00	0000 0000	AMMO A	002 - 330	001 - 329	AMMO E
1	10	0001 0000		332 - 660	331 - 659	
2	20	0010 0000		662 - 990	661 - 989	
3	30	0011 0000		992 - 1320	991 - 1319	
4	04	0000 0100		1322 - 1650	1321 - 1649	
5	05	0000 0101		1652 - 1980	1651 - 1979	
6	06	0000 0110		1982 - 2310	1981 - 2309	
7	01	0000 0001		2312 - 2640	2311 - 2639	
8	02	0000 0010		2642 - 2970	2641 - 2969	
9	03	0000 0011		2972 - 3300	2971 - 3299	
0	40	0100 0000	AMMO B	002 - 330	001 - 329	AMMO F
1	50	0101 0000		332 - 660	331 - 659	
2	60	0110 0000		662 - 990	661 - 989	
3	70	0111 0000		992 - 1320	991 - 1319	
4	0B	0000 1011		1322 - 1650	1321 - 1649	
5	0C	0000 1100		1652 - 1980	1651 - 1979	
6	07	0000 0111		1982 - 2310	1981 - 2309	
7	08	0000 1000		2312 - 2640	2311 - 2639	
8	09	0000 1001		2642 - 2970	2641 - 2969	
9	0A	0000 1010		2972 - 3300	2971 - 3299	
0	80	1000 0000	AMMO C	002 - 330	001 - 329	AMMO G
1	90	1001 0000		332 - 660	331 - 659	
2	A0	1010 0000		662 - 990	661 - 989	
3	B0	1011 0000		992 - 1320	991 - 1319	
4	14	0001 0100		1322 - 1650	1321 - 1649	
5	16	0001 0110		1652 - 1980	1651 - 1979	
6	0D	0000 1101		1982 - 2310	1981 - 2309	
7	0E	0000 1110		2312 - 2640	2311 - 2639	
8	0F	0000 1111		2642 - 2970	2641 - 2969	
9	12	0001 0010		2972 - 3300	2971 - 3299	
0	C0	1100 0000	AMMO D	002 - 330	001 - 329	AMMO H
1	D0	1101 0000		332 - 660	331 - 659	
2	E0	1110 0000		662 - 990	661 - 989	
3	F0	1111 0000		992 - 1320	991 - 1319	
4	21	0010 0001		1322 - 1650	1321 - 1649	
5	24	0010 0100		1652 - 1980	1651 - 1979	
6	18	0001 1000		1982 - 2310	1981 - 2309	
7	1°	0001 1010		2312 - 2640	2311 - 2639	
8	1C	0001 1100		2642 - 2970	2641 - 2969	
9	1E	0001 1110		2972 - 3300	2971 - 3299	

APPENDIX C

Serial Number	CODE PREFIX (HEXA-DECIMAL) "YZ"	CODE PREFIX (BINARY)	AMMO TYPE (BLUEFOR)	BLUEFORCE PLAYER ID (EVEN ONLY)	OPFOR PLAYER ID (ODD ONLY)	AMMO TYPE (OPFOR)
0	25	0010 0101	AMMO I	002 - 330	001 - 329	AMMO M
1	28	0010 1000		332 - 660	331 - 659	
2	29	0010 1001		662 - 990	661 - 989	
3	2C	0010 1100		992 - 1320	991 - 1319	
4	2D	0010 1101		1322 - 1650	1321 - 1649	
5	34	0011 0100		1652 - 1980	1651 - 1979	
6	38	0011 1000		1982 - 2310	1981 - 2309	
7	3C	0011 1100		2312 - 2640	2311 - 2639	
8	41	0100 0001		2642 - 2970	2641 - 2969	
9	42	0100 0010		2972 - 3300	2971 - 3299	
0	43	0100 0011	AMMO J	002 - 330	001 - 329	AMMO N
1	48	0100 1000		332 - 660	331 - 659	
2	49	0100 1001		662 - 990	661 - 989	
3	4A	0100 1010		992 - 1320	991 - 1319	
4	4B	0100 1011		1322 - 1650	1321 - 1649	
5	52	0101 0010		1652 - 1980	1651 - 1979	
6	58	0101 1000		1982 - 2310	1981 - 2309	
7	5A	0101 1010		2312 - 2640	2311 - 2639	
8	61	0110 0001		2642 - 2970	2641 - 2969	
9	68	0110 1000		2972 - 3300	2971 - 3299	
0	69	0110 1001	AMMO K	002 - 330	001 - 329	AMMO O
1	78	0111 1000		332 - 660	331 - 659	
2	81	1000 0001		662 - 990	661 - 989	
3	82	1000 0010		992 - 1320	991 - 1319	
4	83	1000 0011		1322 - 1650	1321 - 1649	
5	84	1000 0100		1652 - 1980	1651 - 1979	
6	85	1000 0101		1982 - 2310	1981 - 2309	
7	86	1000 0110		2312 - 2640	2311 - 2639	
8	87	1000 0111		2642 - 2970	2641 - 2969	
9	92	1001 0010		2972 - 3300	2971 - 3299	
0	94	1001 0100	AMMO L	002 - 330	001 - 329	AMMO P
1	96	1001 0110		332 - 660	331 - 659	
2	A1	1010 0001		662 - 990	661 - 989	
3	A4	1010 0100		992 - 1320	991 - 1319	
4	A5	1010 0101		1322 - 1650	1321 - 1649	
5	B4	1011 0100		1652 - 1980	1651 - 1979	
6	C1	1100 0001		1982 - 2310	1981 - 2309	
7	C2	1100 0010		2312 - 2640	2311 - 2639	
8	C3	1100 0011		2642 - 2970	2641 - 2969	
9	D2	1101 0010		2972 - 3300	2971 - 3299	
	E1	1110 0001	Special Codes	002 - 330	001 - 329	Special Codes

APPENDIX C

TABLE C2: MCC BIN LOCATION FOR PID ACTIVE BITS (LOGIC 1)

AMMO TYPE	HEXA DECIMAL PREFIX	BIN LOCATION FOR FIRST LOGIC 1 BIT	BIN LOCATION FOR SECOND LOGIC 1 BIT	BIN LOCATION FOR THIRD LOGIC 1 BIT	BIN LOCATION FOR FOURTH LOGIC 1 BIT
A&E	00	8	8	8	8
A&E	01	8	8	8	10
A&E	02	8	8	10	8
A&E	03	8	8	10	10
A&E	04	8	10	8	8
A&E	05	8	10	8	10
A&E	06	8	10	10	8
A&E	10	8	8	8	6
A&E	20	8	8	6	8
A&E	30	8	8	6	6
B&F	07	8	10	10	10
B&F	08	10	8	8	8
B&F	09	10	8	8	10
B&F	0A	10	8	10	8
B&F	0B	10	8	10	10
B&F	0C	10	10	8	8
B&F	40	8	6	8	8
B&F	50	8	6	8	6
B&F	60	8	6	6	8
B&F	70	8	6	6	6
C&G	0D	10	10	8	10
C&G	0E	10	10	10	8
C&G	0F	10	10	10	10

APPENDIX C

AMMO TYPE	HEXA DECIMAL PREFIX	BIN LOCATION FOR FIRST LOGIC 1 BIT	BIN LOCATION FOR SECOND LOGIC 1 BIT	BIN LOCATION FOR THIRD LOGIC 1 BIT	BIN LOCATION FOR FOURTH LOGIC 1 BIT
C&G	12	8	8	10	6
C&G	14	8	10	8	6
C&G	16	8	10	10	6
C&G	80	6	8	8	8
C&G	90	6	8	8	6
C&G	A0	6	8	6	8
C&G	B0	6	8	6	6
D&H	18	10	8	8	6
D&H	1A	10	8	10	6
D&H	1C	10	10	8	6
D&H	1E	10	10	10	6
D&H	21	8	10	6	8
D&H	24	8	8	6	10
D&H	C0	6	6	8	8
D&H	D0	6	6	8	6
D&H	E0	6	6	6	8
D&H	F0	6	6	6	6
I&M	25	8	10	6	10
I&M	28	10	8	6	8
I&M	29	10	8	6	10
I&M	2C	10	10	6	8
I&M	2D	10	10	6	10
I&M	34	8	10	6	6
I&M	38	10	8	6	6

APPENDIX C

AMMO TYPE	HEXA DECIMAL PREFIX	BIN LOCATION FOR FIRST LOGIC 1 BIT	BIN LOCATION FOR SECOND LOGIC 1 BIT	BIN LOCATION FOR THIRD LOGIC 1 BIT	BIN LOCATION FOR FOURTH LOGIC 1 BIT
I&M	3C	10	10	6	6
I&M	41	8	6	8	10
I&M	42	8	6	10	8
J&N	43	8	6	10	10
J&N	48	10	6	8	8
J&N	49	10	6	8	10
J&N	4A	10	6	10	8
J&N	4B	10	6	10	10
J&N	52	8	6	10	6
J&N	58	10	6	8	6
J&N	5A	10	6	10	6
J&N	61	8	6	6	10
J&N	68	10	6	6	8
K&O	69	10	6	6	10
K&O	78	10	6	6	6
K&O	81	6	8	8	10
K&O	82	6	8	10	8
K&O	83	6	8	10	10
K&O	84	6	10	8	8
K&O	85	6	10	8	10
K&O	86	6	10	10	8
K&O	87	6	10	10	10
K&O	92	6	8	10	6
L&P	94	6	10	8	6

APPENDIX C

AMMO TYPE	HEXA DECIMAL PREFIX	BIN LOCATION FOR FIRST LOGIC 1 BIT	BIN LOCATION FOR SECOND LOGIC 1 BIT	BIN LOCATION FOR THIRD LOGIC 1 BIT	BIN LOCATION FOR FOURTH LOGIC 1 BIT
L&P	96	6	10	10	6
L&P	A1	6	8	6	10
L&P	A4	6	10	6	8
L&P	A5	6	10	6	10
L&P	B4	6	10	6	6
L&P	C1	6	6	10	8
L&P	C2	6	6	8	10
L&P	C3	6	6	10	10
L&P	D2	6	6	10	6
	E1	6	6	6	10

APPENDIX D

TABLE D1: MILES CODE PARAMETERS FOR DIRECT FIRE ROUTINE

MILES Code No.	No. of Heavy Weapon Hit Words (K) /Round	Delay (D1) μ s	Light Weapon Hit Code No.	No. of Light Weapon Hit Words (M) /Round	Delay (D2) μ s	Heavy Weapon Near Miss Code No.. ¹	No. of Heavy Weapon Near Miss Words /Round	Delay (D3) μ s	Light Weapon Near Miss Code No.	No. of Light Weapon Near Miss Word /Round
00	16	0	-	0	0	0	0	0	0	0
01	8	1600	27	128	1600	28	128	-	-	-
04	8	1600	27	128	1600	28	128	-	-	-
05	4	1600	27	128	1600	28	128	-	-	-
06	8	1600	27	128	1600	28	128	-	-	-
10	8	1600	27	128	1600	28	128	-	-	-
11	4	1600	27	128	1600	28	128	-	-	-
12	8	1600	27	128	1600	28	128	-	-	-
13	8	1600	27	128	1600	28	128	-	-	-
14	8	1600	27	128	1600	28	128	-	-	-
15	8	1600	27	128	1600	28	128	-	-	-
16	8	1600	27	128	1600	28	128	-	-	-
17	8	1600	27	128	1600	28	128	-	-	-
18	8	1600	27	128	1600	28	128	-	-	-
19	8	1600	27	128	1600	28	128	-	-	-
20	8	1600	27	128	1600	28	128	-	-	-
21	8	1600	27	128	1600	28	128	-	-	-
22	8	1600	27	128	1600	28	128	-	-	-
23	8	1600	27	128	1600	28	128	-	-	-
24	0	0	24	4	-	-	-	1600	29	128
25	8	1600	27	128	1600	28	128	-	-	-
26	8	1600	27	128	1600	28	128	-	-	-
27	0	0	27	4	-	-	-	1600	29	128

¹ Multiples of 124.98, 166.67, 208.3 μ s should be avoided because they are multiples of Bins #6, #8, and #10.
 Older systems use 479-1650 μ s

APPENDIX D

TABLE D2: MILES CODE PARAMETERS FOR GUIDED MISSILE ROUTINE

S Code No.	Range (meters)	IGS Transmit Time for DA (s)	IGS No. of Messages / second	FGS Transmit Time for DB (s)	FGS No. of Messages / Second	Light Weapon Hit Code No.	Delay D1 (ms)	No. of Light Weapon Words	Tracking Interval T(s)	No. of Messages for "Hit" Eval. (GK)
02		TBD	TBD	TBD	TBD	27	121.3	128	TBD	TBD
03		TBD	TBD	TBD	TBD	27	121.3	128	TBD	TBD
07	1000	2	8	1	16	27	121.3	128	15	22
07	1200	3	5.33	1	16	27	121.3	128	15	22
07	1500	3	5.33	2	8	27	121.3	128	15	22
07	1700	4	4	2	8	27	121.3	128	15	22
07	2000	5	3.2	2	8	27	121.3	128	15	22
07	2200	6	2.67	2	8	27	121.3	128	15	22
07	2400	7	2.29	2	8	27	121.3	128	15	22
07	2600	8 *	2 *	2*	8 *	27 *	121.3*	128 *	15	22
07	2800	9	1.78	2	8	27	121.3	128	15	22
07	3000	10	1.6	2	8	27	121.3	128	15	22
07	3300	11	1.45	2	8	27	121.3	128	15	22
07	3500	12	1.33	2	8	27	121.3	128	15	22
07	3750	13	1.23	2	8	27	121.3	128	15	22
08		4 *	4 *	2 *	8 *	27 *	121.3*	128 *	6 *	22

* BASIC MILES

Note: Each missile message consists of eight (8) missile words.

APPENDIX D

TABLE D3: MILES CODE PARAMETERS FOR FIRE & FORGET MISSILE ROUTINE

MILES Code No.	AMMO TYPE	Delay (D) (ms)	No. of Code 09 Words / Round	Delay (D1) (ms)	Light Weapon Hit Code No.	No. of Light Weapon Hit Words	Delay (D2) (ms)	Heavy Weapon Near Miss Code No	No. of Near Miss Words	Delay Time For A/V Cue (s)	Total Trans mit Time T (s)	No. of Decoded Words (N)	Decoding Window Duration T1 (s)
09	A & E	0 to 167	224	1650	27	16	1650	28	32	10	1	4	2

APPENDIX E

TABLE E1: AMMUNITION TYPE PARTITIONING ASSIGNMENT

MILES Code	Weapon/Munition	Ammo Factors							
		A & E	B & F	C & G	D & H	I & M	J & N	K & O	L & P
00	Universal Kill	Universal Kill							
01	Hellfire								
02	Unassigned								
03	AT-3								
04	Unassigned								
05	Unassigned								
06	Unassigned								
07	TOW, AT-5 (Konkurs)	TOW -IIA	TOW-IIB	AT-5	TOW F&F Alternate mode.				
08	Dragon								
09	Fire & Forget Missiles	Javelin	TOW F&F	LOSAT					
10	125 mm	SABOT	HEAT	HE	Cumulative (K)				
11	Claymore, Mine								
12	105 mm	SABOT	HEAT						
13	122 mm ARTY DF								
14	73 mm, 2.75" Rocket, 57 mm								
15	Viper, RPG-7, Carl Gustav, AT-4	Carl Gustav	RPG-7	AT-4	Viper				
16	120 mm	SABOT	HEAT						
17	90 mm	SABOT	HEAT						
18	152 mm, 155 mm								
19	40 mm Grenade	M430	M385	M918	M918				
20	Rockeye, SMAW								
21	30 mm, GAU-8								
22	25 mm, ZSU 23-4	SABOT	HEAT						
23	30mm (NTC HIND-D), Vulcan								
24	Heavy MG (M2, M85)	Vehicle Mounted		Ind. Weapon	Ind. Weapon				
25	Chaparral, SAM								

APPENDIX E

MILES Code	Weapon/Munition	Ammo Factors							
		A & E	B & F	C & G	D & H	I & M	J & N	K & O	L & P
MILES Code	Weapon/Munition	Ammo Factors							
26	Stinger	A & E	B & F	C & G	D & H	I & M	J & N	K & O	L & P
27	Small Arms (M16, M60, Coax)	Vehicle Mounted	Crew Served	Ind. Weapon	Ind. Weapon				
28	Heavy Weapon Miss								
29	Light Weapon Miss	Vehicle Mounted	Crew Served	Ind. Weapon	Ind. Weapon				
30	Resurrect (GND Systems), Reset (Aircraft Systems)								
31	Heavy Spare Miss								
32	RF SAM								
33	SA-14								
34	AAA-2 30mm								
35	Controller Gun Utility Codes	See Appendix F							
36	Reset (GND Systems), Resurrect (Aircraft Systems)								
	Boresight (Continuous Transmission)								

APPENDIX F

TABLE F1: MILES CODE PARAMETERS FOR ADMINISTRATIVE FUNCTIONS

MILES Code No.	Ammo Type	PID No.	No. of Words (K1)	Function
30	All	All	8	N/A
36	All	All	8	N/A
35	A & E	See Below	Variable, minimum of 2.*	See Below

* Maximum will be added which takes into account eye safety.

CODE 35 PID USEAGE FOR CONTROLLER GUN FUNCTIONS.

The numbers below identify the PIDs associated with Code 35 administrative functions:

PID No. for MILES Code 35

Decimal	Functions
162	SMAW spotting rifle
1 to 300	SAT Random No. ID, or SAT Checksum data (1-256 only)
301	SAT ‘Weapon Code Setup’ acknowledge
302	SAT ‘On’ acknowledge
303	SAT ‘Off’ acknowledge
304	SAT (spare 1)
305	SAT (spare 2)
306	Surrogate ID request
307	Surrogate AT4 fire
308	Surrogate SMAW fire Anti-Armor
309	Surrogate SMAW fire Bunker Buster
310	Surrogate SMAW fire spotting rifle
311	Surrogate (spare 1)
312	Surrogate (spare 2)
313	Turret Position Sensor Signal
314	Turret Position Sensor battery low
315	Set Controller mode ON
316	Set Controller mode OFF
317-330	CIDDS Special Functions

APPENDIX F

PID No. for MILES Code 35

Decimal	Functions
331	Test
661	Time Mark
1321	Enable
1000-1011	Month*
1012-1042	Date*
1043-1049	Day of week (Sunday, Monday, etc.)*
1050-1073	Hours after midnight (1050 = midnight)*
1074-1133	Minutes (1074 = 0 minutes)*
1134-1193	Seconds (1134 = 0 seconds)*
1194	Time sync message complete*
2001	Change even PID to odd by subtracting 1 from PID. Beep buzzer once for 100ms and send new PID and Laser Codes to SAT via Message ID 0x31 and 0x33.
2002	Change odd PID to even by adding 1 to PID. Beep buzzer once for 100ms and send new PID and Laser Codes to SAT via Message ID 0x31 and 0x33.
2003	Send domain of vest neuron chip to Controller Device. Used during Controller Device pairing. (Message ID 0x09)(Sub Message ID 0x30)
2004	Extend run-time of vest to 24 hours, beep buzzer once for 100ms
2005	Power off vest and all paired units, beep buzzer once for 100ms. Send power off message (Message ID 0x1B) to other devices.
2006	Report vest real time clock value (Message ID 0x74) to Controller Device.
2007	Clear vest events and rounds related counters, beep buzzer once for 100ms
2049	Change belt number to 1. (Front)
2050	Change belt number to 2. (Right)
2051	Change belt number to 3. (Rear)
2052	Change belt number to 4. (Left)
2053	Change belt number to 5. (Front-Right)

APPENDIX F

PID No. for MILES Code 35

Decimal	Functions
2054	Change belt number to 6. (Rear-Right)
2055	Change belt number to 7. (Rear-Left)
2056	Change belt number to 8. (Front-Left)

*Note: The laser time sync message consists of one PID each of Month, Date, Day of week, Hours after midnight, Minutes, Seconds, and Time sync complete, in that order.

ATTACHMENT 1 – MCC ENCODER/DECODER DESIGN NOTES

Note 1: Rapid Fire Weapon, Direct Fire Routine (DFR), Encoding Adaptation.

Rapid-fire weapons, such as 50 Cal Machine Gun, fired in the burst mode using blank fire ammunition require an encoding adaptation. This configures the DFR for the specific rapid-fire weapon to adequately simulate its enhanced lethality over single shot lethality expectations. In the adaptation, the encoder will suppress the Near Miss Message portion of the DFR as follows:

1. A special blank round detonation sensor system detects the firing of a blank round by sensing its detonation to generate a detonation event signal. This signal informs the encoder of the detonation event.
2. The first round detonation event signal, in a rapid fire burst, initiates the appropriate DFR sequence for the blank ammunition fired.
3. The second and subsequent detonation event signals, in a given rapid fire burst, each initiates the suppression of the encoding of the Near Miss Message portion of the previous fired round's DFR by truncating it. If a second or subsequent detonation signal occurs before the previous DFR Near Miss Message enters encoding sequence, all of it is suppressed. If the signal occurs during the Near Miss Message encoding sequence, the sequence is truncated from that time on.
4. The second or subsequent detonation event signal instantly initiates the next fired round's DFR. The process repeats until the fire burst is completed with the last round resulting in the encoding of the complete DFR appropriate for the given rapid fire weapon.

Note 2: Direct Fire Weapon Lethality Effects Assessment Routine:

When a MILES Decoder successfully decodes two (2) Hit Words within an eight (8) Hit Word transmission time interval, it initiates a Lethality Effects Assessment Routine (LEAR) to assess the lethality effects status of the host target based on the decode incident.

There is a range dependency inherent in this implementation. At close ranges, the Decoder can, with high probability of success, decode four (4) pairs of Hit Words out of a received eight (8) Hit Word sequence. The Decoder will initiate the LEAR four times in this case. At long range, due to the lower probability of a successful reception of the transmitted Hit Word signal by the MILES Target System, the Decoder may successfully decoded fewer than four (4) pairs of Hit Words. It probably will initiate the LEAR less than four times.

Since the LEAR is entered more than once, and with high probability, four (4) times at close range, the actual probability for each execution of the LEAR must be set less than the desired single weapon ammunition engagement close range lethality effect status Kill Probability. (One Kill lethality effect status assessment outcome from the multiple LEAR executions is sufficient to kill the target.) The equation relating the two probabilities is:

$$Pk = 1 - (1 - PW)^D$$

Where Pk = Kill Probability given all Hit Words were received and successfully decoded (close range condition).

PW = Kill Probability given a single pair of Hit Words were received and successfully decoded.

D = Number of executions of the LEAR given perfect reception and decode.

The decoder will initiate the LEAR when any one of the following events occurs:

1. Two (2) identical MILES codes with an identical PID's are detected within the appropriate time window.
2. Two (2) identical MILES codes with 1 valid PID is detected (one code contains a PID that contains an error, not PID 0000) within the appropriate time window. The valid PID is used for the LEAR and display.
3. Two (2) identical MILES codes with no valid PID's detected (both PID's contain errors, not PID 0000) within the appropriate time window. PID 0000 is used for the LEAR. PID FFFF is displayed.

Pk for various weapon's lethality status assessment evaluations are listed in the Pk Tables attached. [The exception is for some Manworn and crew served systems only one word is needed.]

Note 3: Lethality Effects Assessment Routine for Missile Weapons:

ATTACHMENT 1 – MCC ENCODER/DECODER DESIGN NOTES

For Missile Weapons, LEAR is entered using the Pk value corresponding to the Missile Weapon Code in the Pk Table when a Hit is decoded to determine whether the hit caused a kill. The Hit/Kill decision statistics for the Missile Weapons are based upon the weapon and target type involved.

Note 4: Multi-Level Lethality Effects Status For Heavy Weapon Hit.

The multi-level lethality effects assessment for will be one of the following categories:

Catastrophic Kill (Catk).

Firepower Kill (Fk).

Mobility Kill (Mk).

Commo Kill (Ck).

Hit.

LEAR will assess the category for a hit based on the following formula:

$\text{Catk} = \text{Pk} \times \text{Ammo Factor} \times \text{Aspect Angle Modifier}$.

If a Catastrophic Kill is not assessed, then a Firepower Kill assessment is made where $\text{Fk} = \text{Catk} \times \text{Fpk Factor}$.

If a Firepower Kill is not assessed, then a Mobility Kill is assessed where $\text{Mk} = \text{Catk} \times \text{Mobk Factor}$.

If a Mobility kill is not assessed, then a Commo kill shall be assessed as $\text{Ck} = \text{Catk} \times \text{Comk Factor}$.

If a Commo kill is not assessed, then a Hit is assessed.

The value of Ammo Factor is based on the lethality of the particular ammunition. The MCC will allow a total of eight (8) Ammo Factors. The exact values for the additional four Ammo factors (#5, #6, #7 & #8) will be specified as additional ammunition are included.

ATTACHMENT 2 – VULNERABILITY/PK TABLES

M1A1 Tank - 120mm															
MILES	Catastrophic P _k Factors				Sub P _k Factors			Ammo Factors							
	Front Belt	R Side Belt	Rear Belt	L Side Belt	FpK	MobK	ComK	A & E	B & F	C & G	D & H	I & M	J & N	K & O	L & P
	Zone 1	Zone 2	Zone 3	Zone 4											
00	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
01	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
02	60	90	100	90	0.80	1.25	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
03	10	40	90	40	0.80	2.00	10.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
04	0.5	1	10	1	1.00	4.00	20.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
05	0.5	0.5	0.5	0.5	0.02	200.00	0.02	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
06	NE	NE	NE	NE	---	---	---	---	---	---	1.00	1.00	1.00	1.00	
07	25	35	30	35	1.50	2.00	2.25	1.00	1.25	1.00	1.00	1.00	1.00	1.00	
08	2	10	30	10	1.00	5.00	50.00	1.00	1.50	1.00	1.00	1.00	1.00	1.00	
09	50	70	90	70	0.10	0.50	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
10	10	20	30	20	2.50	3.00	5.00	1.00	0.50	1.00	1.00	1.00	1.00	1.00	
11	NE	NE	NE	NE	---	---	---	---	---	---	1.00	1.00	1.00	1.00	
12	25	35	40	35	1.50	1.75	3.00	1.00	0.50	1.00	1.00	1.00	1.00	1.00	
13	0.5	5	10	5	1.00	4.00	10.00	1.00	0.50	1.00	1.00	1.00	1.00	1.00	
14	0.5	10	30	10	1.00	3.00	10.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	
15	0.5	5	20	5	1.00	4.00	8.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	
16	30	40	45	40	1.50	1.75	3.00	1.00	0.50	1.00	1.00	1.00	1.00	1.00	
17	0.5	10	30	10	1.00	4.00	8.00	1.00	0.50	1.00	1.00	1.00	1.00	1.00	
18	0.5	5	10	5	1.00	4.00	10.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
19	0.5	0.5	1	0.5	0.02	0.50	5.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
20	1	10	40	10	1.00	3.00	10.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
21	1	3	15	3	10.00	5.00	33.30	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
22	0.5	0.5	1	0.5	0.02	0.50	5.00	1.00	0.50	1.00	1.00	1.00	1.00	1.00	
23	0.5	0.5	1	0.5	0.02	0.50	5.00	1.00	0.50	1.00	1.00	1.00	1.00	1.00	
24	0.5	0.5	0.5	0.5	0.02	0.02	4.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
25	NE	NE	NE	NE											
26	NE	NE	NE	NE											
27	NE	NE	NE	NE											
28	NM	NM	NM	NM											
29	NE	NE	NE	NE											
30	OP	OP	OP	OP											
31	NM	NM	NM	NM											
32	NE	NE	NE	NE											
33	NE	NE	NE	NE											
34	NE	NE	NE	NE											
HUTT Aspect Angle Modifier (Main Gun Direction)					Legend:										
Posi	Zone 1	Zone 2	Zone 3	Zone 4											
1-Ft	1	1	1	1											
2-Rt	1.25	1.12	1.16	0.88											
3-Rt	1.5	1.25	1.33	0.75											
4-Rt	1.75	1.12	1	0.88											
5-Rr	2	1	0.67	1											
6-Lt	1.75	0.88	1	1.12											
7-Lt	1.5	0.75	1.33	1.25											
8-Lt	1.25	0.88	1.16	1.12											

ATTACHMENT 2 – VULNERABILITY/PK TABLES

MI TANK - 105mm															
MILES	Catastrophic P _k Factors				Sub P _k Factors				Ammo Factors						
	Front Belt	R Side Belt	Rear Belt	L Side Belt	FpK	MobK	ComK	A & E	B & F	C & G	D & H	I & M	J & N	K & O	L & P
	Code	Zone 1	Zone 2	Zone 3	Zone 4										
00	100	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
01	100	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
02	80	100	100	100	100	1.00	1.25	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
03	20	50	90	50	50	1.00	2.00	5.00	1.00	1.00	1.00	1.00	1.00	1.00	
04	0.5	5	10	5	5	1.00	4.00	10.00	1.00	1.00	1.00	1.00	1.00	1.00	
05	0.5	0.5	0.5	0.5	0.5	0.02	200.00	0.02	1.00	1.00	1.00	1.00	1.00	1.00	
06	NE	NE	NE	NE	NE	---	---	---	---	---	1.00	1.00	1.00	1.00	
07	30	60	100	60	60	1.50	1.50	3.33	1.00	1.25	1.00	1.00	1.00	1.00	
08	5	20	30	20	20	1.00	4.00	20.00	1.00	1.50	1.00	1.00	1.00	1.00	
09	50	70	90	70	70	0.10	0.50	2.00	1.00	1.00	1.00	1.00	1.00	1.00	
10	30	60	80	60	60	1.00	2.00	3.33	1.00	0.50	1.00	1.00	1.00	1.00	
11	NE	NE	NE	NE	NE	---	---	---	---	---	---	1.00	1.00	1.00	
12	35	40	50	40	40	0.50	2.25	10.00	1.00	0.50	1.00	1.00	1.00	1.00	
13	0.5	5	10	5	5	1.00	4.00	10.00	1.00	0.50	1.00	1.00	1.00	1.00	
14	0.5	10	30	10	10	1.00	3.00	10.00	1.00	2.00	1.00	1.00	1.00	1.00	
15	0.5	10	20	10	10	1.00	4.00	8.00	1.00	2.00	1.00	1.00	1.00	1.00	
16	40	45	55	45	45	1.00	2.25	20.00	1.00	0.50	1.00	1.00	1.00	1.00	
17	1	15	30	15	15	1.00	4.00	8.00	1.00	0.50	1.00	1.00	1.00	1.00	
18	0.5	5	10	5	5	1.00	4.00	10.00	1.00	1.00	1.00	1.00	1.00	1.00	
19	0.5	0.5	1	0.5	0.5	0.02	0.50	5.00	1.00	1.00	1.00	1.00	1.00	1.00	
20	1	10	40	10	10	1.00	3.00	10.00	1.00	1.00	1.00	1.00	1.00	1.00	
21	1	3	15	3	3	10.00	5.00	33.30	1.00	1.00	1.00	1.00	1.00	1.00	
22	0.5	0.5	1	0.5	0.5	0.02	0.50	5.00	1.00	0.50	1.00	1.00	1.00	1.00	
23	0.5	0.5	1	0.5	0.5	0.02	0.50	5.00	1.00	0.50	1.00	1.00	1.00	1.00	
24	0.5	0.5	0.5	0.5	0.5	0.02	0.02	4.00	1.00	1.00	1.00	1.00	1.00	1.00	
25	NE	NE	NE	NE	NE										
26	NE	NE	NE	NE	NE										
27	NE	NE	NE	NE	NE										
28	NM	NM	NM	NM	NM										
29	NE	NE	NE	NE	NE										
30	OP	OP	OP	OP	OP										
31	NM	NM	NM	NM	NM										
32	NE	NE	NE	NE	NE										
33	NE	NE	NE	NE	NE										
34	NE	NE	NE	NE	NE										
HUTT Aspect Angle Modifier (Main Gun Direction)										NM-Near Miss					
Posit	Zone 1	Zone 2	Zone 3	Zone 4						OP-Optical Reset					
I-FT	1	1	1	1						Ft-Front Aspect					
2-Rtf	1.25	1.08	0.94	0.88						Rt-Right Aspect					
3-Rt	1.5	1.16	0.88	0.75						Rr-Rear Aspect					
4-Rtf	1.66	1.08	0.79	0.88						Lt-Left Aspect					
5-Rr	1.83	1	0.69	1						RtFt-Right Front Aspect					
6-Ltf	1.66	0.88	0.79	1.08						RtRr-Right Rear Aspect					
7-Lt	1.5	0.75	0.88	1.16						LtRr-Left Rear Aspect					
8-Ltf	1.25	0.88	0.94	1.08						LtFt-Left Front Aspect					

Legend: FpK-Firepower Kill
 MobK-Mobility Kill
 ComK-Commo Kill

NE-No Effect

ATTACHMENT 2 – VULNERABILITY/PK TABLES

M60A1 Tank - 105mm

MILES Code	Catastrophic P _k Factors				Sub P _k Factors								Ammo Factors							
	Front Belt	R Side Belt	Rear Belt	L Side Belt	FpK	MobK	Comk	A & E	B & F	C & G	D & H	I & M	J & N	K & O	L & P					
	Zone 1	Zone 2	Zone 3	Zone 4	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					
00	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					
01	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					
02	90	100	100	100	1.00	1.25	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					
03	40	70	90	70	1.00	2.00	5.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					
04	0.50	10	20	10	1.00	4.00	8.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					
05	0.50	0.50	0.50	0.50	0.02	200.00	0.02	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					
06	NE	NE	NE	NE	---	---	---	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					
07	50	80	100	80	1.00	2.00	1.00	1.00	1.25	1.00	1.00	1.00	1.00	1.00	1.00					
08	10	40	50	40	1.25	4.00	10.00	1.00	1.50	1.00	1.00	1.00	1.00	1.00	1.00					
09	50	70	90	70	0.10	0.50	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					
10	50	80	100	80	1.00	2.00	2.00	1.00	0.50	1.00	1.00	1.00	1.00	1.00	1.00					
11	NE	NE	NE	NE	---	---	---	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					
12	35	60	90	60	1.00	2.25	10.00	1.00	0.50	1.00	1.00	1.00	1.00	1.00	1.00					
13	0.50	5	10	5	1.00	4.00	10.00	1.00	0.50	1.00	1.00	1.00	1.00	1.00	1.00					
14	0.50	10	30	10	1.00	3.00	10.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00					
15	5	20	50	20	1.00	4.00	10.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00					
16	40	60	90	60	1.00	1.50	5.00	1.00	0.50	1.00	1.00	1.00	1.00	1.00	1.00					
17	5	25	40	25	1.00	3.00	10.00	1.00	0.50	1.00	1.00	1.00	1.00	1.00	1.00					
18	0.50	5	10	5	1.00	4.00	10.00	1.00	0.50	1.00	1.00	1.00	1.00	1.00	1.00					
19	0.50	0.50	1	0.5	0.02	0.50	5.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					
20	1	10	40	10	1.00	3.00	10.00	10.00	5.00	33.30	1.00	1.00	1.00	1.00	1.00					
21	1	5	25	5	0.02	0.50	5.00	1.00	0.50	1.00	1.00	1.00	1.00	1.00	1.00					
22	0.50	0.50	1	0.50	0.02	0.50	5.00	1.00	0.50	1.00	1.00	1.00	1.00	1.00	1.00					
23	0.50	0.50	1	0.50	0.02	0.50	5.00	1.00	0.50	1.00	1.00	1.00	1.00	1.00	1.00					
24	0.50	0.50	0.50	0.50	0.02	0.02	4.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					
25	NE	NE	NE	NE	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					
26	NE	NE	NE	NE	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					
27	NE	NE	NE	NE	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					
28	NM	NM	NM	NM	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					
29	NE	NE	NE	NE	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					
30	OP	OP	OP	OP	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					
31	NM	NM	NM	NM	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					
32	NE	NE	NE	NE	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					
33	NE	NE	NE	NE	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					
34	NE	NE	NE	NE	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					

HUTT Aspect Angle Modifier (Main Gun Direction)

Posit	Zone 1	Zone 2	Zone 3	Zone 4
1-Ft	1	1	1	1
2-RtF	1.15	1.08	0.95	0.91
3-Rt	1.3	1.12	0.9	0.82
4-RtF	1.4	1.06	0.82	0.91
5-Rr	1.5	1	0.75	1
6-LtR	1.4	0.91	0.82	1.06
7-Lt	1.3	0.82	0.9	1.12
8-LtF	1.15	0.91	0.95	1.06

Legend:

- FpK-Firepower Kill
- MobK-Mobility Kill
- ComK-Commo Kill
- NE-No Effect
- NM-Near Miss
- OP-Optical Reset
- Ft-Front Aspect
- Rt-Right Aspect
- Rr-Rear Aspect
- Lt-Left Aspect
- RtFt-Right Front
- RtRr-Right Rear
- LtRr-Left Rear
- LtFt-Left Front

ATTACHMENT 2 – VULNERABILITY/PK TABLES

T80 Tank

Catastrophic P_k Factors				
MILES	Front Belt	R Side Belt	Rear Belt	L Side Belt
Code	Zone 1	Zone 2	Zone 3	Zone 4
00	100	100	100	100
01	100	100	100	100
02	60	90	100	90
03	10	40	90	40
04	0.5	1	10	1
05	0.5	0.5	0.5	0.5
06	NE	NE	NE	NE
07	25	35	30	35
08	2	10	30	10
09	50	70	90	70
10	10	20	30	20
11	NE	NE	NE	NE
12	25	35	40	35
13	0.5	5	10	5
14	0.5	10	30	10
15	0.5	5	20	5
16	30	40	45	40
17	0.5	10	30	10
18	0.5	5	10	5
19	0.5	0.5	1	0.5
20	1	10	40	10
21	1	3	15	3
22	0.5	0.5	1	0.5
23	0.5	0.5	1	0.5
24	0.5	0.5	0.5	0.5
25	NE	NE	NE	NE
26	NE	NE	NE	NE
27	NE	NE	NE	NE
28	NM	NM	NM	NM
29	NE	NE	NE	NE
30	OP	OP	OP	OP
31	NM	NM	NM	NM
32	NE	NE	NE	NE
33	NE	NE	NE	NE
34	NE	NE	NE	NE

Sub P _k Factors		
FpK	MobK	ComK
1.00	1.00	1.00
1.00	1.00	1.00
0.80	1.25	1.00
0.80	2.00	10.00
1.00	4.00	20.00
0.02	200.00	0.02
---	---	---
1.50	2.00	2.25
1.00	5.00	50.00
0.10	0.50	2.00
2.50	3.00	5.00
---	---	---
1.50	1.75	3.00
1.00	4.00	10.00
1.00	3.00	10.00
1.00	4.00	8.00
1.50	1.75	3.00
1.00	4.00	8.00
1.00	4.00	10.00
0.02	0.50	5.00
1.00	3.00	10.00
10.00	5.00	33.30
0.02	0.50	5.00
0.02	0.50	5.00
0.02	0.02	4.00

Legend:	FpK-Firepower Kill MobK-Mobility Kill ComK-Commo Kill NE-No Effect
ection)	NM-Near Miss OP-Optical Reset
	Ft-Front Aspect
	Rt-Right Aspect
	Rr-Rear Aspect
	Lt-Left Aspect
	RtFt-Right Front
	RtRr-Right Rear
	LtRr-Left Rear
	LtFt-Left Front

HUTT Aspect Angle Modifier (Main Gun Direction)

Posit	Zone 1	Zone 2	Zone 3	Zone 4
1-Ft	1	1	1	1
2-RtF	1.08	1.03	0.97	0.94
3-Rt	1.16	1.06	0.94	0.88
4-RtF	1.2	1.03	0.88	0.94
5-Rr	1.25	1	0.83	1
6-LtR	1.2	0.94	0.88	1.03
7-Lt	1.16	0.88	0.94	1.06
8-LtF	1.08	0.94	0.97	1.03

ATTACHMENT 2 – VULNERABILITY/PK TABLES

T72 Tank															
MILES	Catastrophic P _k Factors				Ammo Factors										
	Front Belt	R Side Belt	Rear Belt	L Side Belt	FpK	MobK	ComK	A & E	B & F	C & G	D & H	I & M	J & N	K & O	L & P
Code	Zone 1	Zone 2	Zone 3	Zone 4	Sub P _k Factors		Ammo Factors								
00	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
01	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
02	80	100	100	100	1.00	1.25	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
03	20	50	90	50	1.00	2.00	5.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
04	0.5	5	10	5	1.00	4.00	10.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
05	0.5	0.5	0.5	0.5	0.02	200.00	0.02	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
06	NE	NE	NE	NE	---	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00
07	30	60	100	60	1.50	1.50	3.33	1.00	1.25	1.00	1.00	1.00	1.00	1.00	1.00
08	5	20	30	20	1.00	4.00	20.00	1.00	1.50	1.00	1.00	1.00	1.00	1.00	1.00
09	50	70	90	70	0.10	0.50	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
10	30	60	80	60	1.00	2.00	3.33	1.00	0.50	0.50	1.00	1.00	1.00	1.00	1.00
11	NE	NE	NE	NE	---	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00
12	25	40	70	40	0.50	2.25	10.00	1.00	0.50	1.00	1.00	1.00	1.00	1.00	1.00
13	0.5	5	10	5	1.00	4.00	10.00	1.00	0.50	1.00	1.00	1.00	1.00	1.00	1.00
14	0.5	10	30	10	1.00	3.00	10.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
15	0.5	10	20	10	1.00	4.00	8.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
16	30	40	70	40	1.00	2.25	20.00	1.00	0.50	1.00	1.00	1.00	1.00	1.00	1.00
17	1	15	30	15	1.00	4.00	8.00	1.00	0.50	1.00	1.00	1.00	1.00	1.00	1.00
18	0.5	5	10	5	1.00	4.00	10.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
19	0.5	0.5	1	0.5	0.02	0.50	5.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
20	1	10	40	10	1.00	3.00	10.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
21	1	3	15	3	10.00	5.00	33.30	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
22	0.5	0.5	1	0.5	0.02	0.50	5.00	1.00	0.50	1.00	1.00	1.00	1.00	1.00	1.00
23	0.02	0.02	1	0.02	0.02	0.50	5.00	1.00	0.50	1.00	1.00	1.00	1.00	1.00	1.00
24	0.5	0.5	0.5	0.5	0.02	0.02	4.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
25	NE	NE	NE	NE	Legend:										
26	NE	NE	NE	NE	FpK-Firepower Kill										
27	NE	NE	NE	NE	MobK-Mobility Kill										
28	NM	NM	NM	NM	ComK-Commo Kill										
29	NE	NE	NE	NE	NE-No Effect										
30	OP	OP	OP	OP	NM-Near Miss										
31	NM	NM	NM	NM	OP-Optical Reset										
32	NE	NE	NE	NE	Ft-Front Aspect										
33	NE	NE	NE	NE	Rt-Right Aspect										
34	NE	NE	NE	NE	Rr-Rear Aspect										
HUTT Aspect Angle Modifier (Main Gun Direction)					Lt-Left Aspect										
Posi	Zone 1	Zone 2	Zone 3	Zone 4	RtFt-Right Front Aspect										
1-Ft	1	1	1	1	RtRr-Right Rear Aspect										
2-RtFt	1.08	1.19	0.9	0.94	LtRr-Left Rear Aspect										
3-Rt	1.17	1.38	0.79	0.88	LtFt-Left Front Aspect										
4-RtFt	1.42	1.19	0.75	0.94											
5-Rr	1.67	1	0.71	1											
6-LtFt	1.42	0.94	0.75	1.19											
7-Lt	1.17	0.88	0.79	1.38											
8-LtFt	1.08	0.94	0.9	1.19											

ATTACHMENT 2 – VULNERABILITY/PK TABLES

M2A2 Vehicle

Catastrophic P_k Factors					Ammo Factors										
MILES Code	Front Belt	R Side Belt	Rear Belt	L Side Belt	FpK	MobK	ComK	A & E	B & F	C & G	D & H	I & M	J & N	K & O	L & P
	Zone 1	Zone 2	Zone 3	Zone 4	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
00	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
01	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
02	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
03	60	80	90	80	0.50	1.50	1.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
04	40	50	70	50	1.00	2.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
05	1	1	1	1	0.02	100.00	0.02	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
06	NE	NE	NE	NE	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00	
07	70	90	100	90	0.50	1.50	1.00	1.00	1.25	1.00	1.00	1.00	1.00	1.00	
08	60	80	90	80	0.50	1.50	1.67	1.00	1.50	1.00	1.00	1.00	1.00	1.00	
09	60	70	80	70	0.50	0.50	1.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
10	80	90	100	90	0.50	2.00	2.50	1.00	0.50	1.00	1.00	1.00	1.00	1.00	
11	NE	NE	NE	NE	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00	
12	70	80	90	80	0.50	2.00	2.50	1.00	0.50	1.00	1.00	1.00	1.00	1.00	
13	65	75	85	75	0.50	2.00	2.50	1.00	0.50	1.00	1.00	1.00	1.00	1.00	
14	10	20	30	20	1.00	2.00	10.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	
15	60	70	80	70	0.50	1.00	1.67	1.00	2.00	1.00	1.00	1.00	1.00	1.00	
16	70	80	90	80	0.50	2.00	2.50	1.00	0.50	1.00	1.00	1.00	1.00	1.00	
17	65	75	85	75	0.50	2.00	3.00	1.00	0.50	1.00	1.00	1.00	1.00	1.00	
18	65	75	85	75	0.50	2.00	3.00	1.00	0.50	1.00	1.00	1.00	1.00	1.00	
19	1	5	10	5	0.50	1.00	8.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
20	10	15	20	15	1.00	2.50	10.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	
21	5	10	15	10	2.00	2.00	10.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
22	10	15	20	15	1.00	1.00	2.00	1.00	0.50	1.00	1.00	1.00	1.00	1.00	
23	5	10	15	10	0.02	1.00	2.00	1.00	0.50	1.00	1.00	1.00	1.00	1.00	
24	0.5	1	2	1	0.02	0.02	5.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
25	NE	NE	NE	NE	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00	
26	NE	NE	NE	NE	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00	
27	NE	NE	NE	NE	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00	
28	NM	NM	NM	NM	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00	
29	NM	NM	NM	NM	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00	
30	OP	OP	OP	OP	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00	
31	NM	NM	NM	NM	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00	
32	NE	NE	NE	NE	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00	
33	NE	NE	NE	NE	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00	
34	NE	NE	NE	NE	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00	

HUTT Aspect Angle Modifier (Main Gun Direction)

Posit	Zone 1	Zone 2	Zone 3	Zone 4
1-Ft	1	1	1	1
2-RtF	1.05	1.1	0.75	1.1
3-Rt	1.1	1.2	0.8	1.1
4-RtF	1.15	1.1	0.9	1.15
5-Rr	1.2	1	0.7	1
6-LtR	1.15	1.15	0.9	1.1
7-Lt	1.1	1.1	0.8	1.2
8-LtF	1.05	1.15	0.75	1.15

Legend: FpK-Firepower Kill
 MobK-Mobility Kill
 ComK-Commo Kill
 NE-No Effect
 NM-Near Miss
 OP-Optical Reset
 Ft-Front Aspect
 Rt-Right Aspect
 Rr-Rear Aspect
 Lt-Left Aspect
 RtFt-Right Front Aspect
 RtRr-Right Rear Aspect
 LtRr-Left Rear Aspect
 LtFt-Left Front Aspect

ATTACHMENT 2 – VULNERABILITY/PK TABLES

M3A2 Vehicle

Catastrophic P _k Factors					Sub P _k Factors								Ammo Factors							
MILES Code	Front Belt	R Side Belt	Rear Belt	L Side Belt	FpK	MobK	ComK	A & E	B & F	C & G	D & H	I & M	J & N	K & O	L & P					
00	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
01	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
02	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
03	60	80	90	80	0.50	1.50	1.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
04	40	50	70	50	1.00	2.00	2.50	0.02	100.00	0.02	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
05	1	1	1	1	---	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
06	NE	NE	NE	NE	0.50	1.50	1.00	1.00	1.25	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
07	70	90	100	90	0.50	1.50	1.67	1.00	1.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
08	60	80	90	80	0.50	1.50	1.67	0.50	0.50	1.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
09	60	70	80	70	0.50	2.00	2.50	0.50	0.50	1.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
10	80	90	100	90	0.50	2.00	2.50	---	---	---	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
11	NE	NE	NE	NE	0.50	2.00	2.50	1.00	0.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
12	70	80	90	80	0.50	2.00	2.50	1.00	0.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
13	65	75	85	75	0.50	2.00	2.50	1.00	2.00	10.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
14	10	20	30	20	0.50	1.00	1.67	0.50	0.50	1.67	1.00	2.00	1.00	1.00	1.00	1.00	1.00			
15	60	70	80	70	0.50	2.00	2.50	0.50	0.50	1.67	1.00	2.00	1.00	1.00	1.00	1.00	1.00			
16	70	80	90	80	0.50	2.00	2.50	0.50	0.50	1.67	1.00	2.00	1.00	1.00	1.00	1.00	1.00			
17	65	75	85	75	0.50	2.00	3.00	0.50	0.50	3.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
18	65	75	85	75	0.50	2.00	3.00	0.50	1.00	8.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
19	1	5	10	5	1.00	2.50	10.00	0.50	1.00	8.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
20	10	15	20	15	2.00	2.00	10.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
21	5	10	15	10	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
22	10	15	20	15	0.02	1.00	2.00	1.00	0.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
23	5	10	15	10	0.02	1.00	2.00	0.02	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
24	0.5	1	2	1	0.02	0.02	5.00	0.02	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
25	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			
26	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			
27	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			
28	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM			
29	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM			
30	OP	OP	OP	OP	OP	OP	OP	OP	OP	OP	OP	OP	OP	OP	OP	OP	OP			
31	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM			
32	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			
33	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			
34	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			

HUTT Aspect Angle Modifier (Main Gun Direction)

Posit	Zone 1	Zone 2	Zone 3	Zone 4
1-Ft	1	1	1	1
2-RtF	1.05	1.1	0.75	1.1
3-Rt	1.1	1.2	0.8	1.1
4-RtR	1.15	1.1	0.9	1.15
5-Rr	1.2	1	0.7	1
6-LtR	1.15	1.15	0.9	1.1
7-Lt	1.1	1.1	0.8	1.2
8-LtF	1.05	1.15	0.75	1.15

Legend:

- FpK-Firepower Kill
- MobK-Mobility Kill
- ComK-Commo Kill
- NE-No Effect
- NM-Near Miss
- OP-Optical Reset
- Ft-Front Aspect
- Rt-Right Aspect
- Rr-Rear Aspect
- Lt-Left Aspect
- RtFt-Right Front Aspect
- RtRr-Right Rear Aspect
- LtRr-Left Rear Aspect
- LtFt-Left Front Aspect

ATTACHMENT 2 – VULNERABILITY/PK TABLES

BMP II Vehicle															
MILES	Catastrophic P _k Factors				Ammo Factors										
	Front Belt	R Side Belt	Rear Belt	L Side Belt	FpK	MobK	ComK	A & E	B & F	C & G	D & H	I & M	J & N	K & O	L & P
	Zone 1	Zone 2	Zone 3	Zone 4											
Code					Sub P _k Factors		Ammo Factors								
00	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
01	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
02	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
03	60	80	80	80	0.50	1.50	1.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
04	40	50	50	50	1.00	1.50	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
05	1	1	1	1	0.02	100.00	0.02	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
06	NE	NE	NE	NE	---	---	---	---	---	---	1.00	1.00	1.00	1.00	
07	70	90	90	90	0.50	1.40	1.50	1.00	1.25	1.00	1.00	1.00	1.00	1.00	
08	60	80	80	80	0.50	1.60	1.67	1.00	1.50	1.00	1.00	1.00	1.00	1.00	
09	25	20	30	20	2.50	3.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
10	80	90	90	90	0.50	1.00	2.50	1.00	0.50	1.00	1.00	1.00	1.00	1.00	
11	NE	NE	NE	NE	---	---	---	---	---	---	1.00	1.00	1.00	1.00	
12	70	80	80	80	0.50	1.00	2.50	1.00	0.50	1.00	1.00	1.00	1.00	1.00	
13	65	75	75	75	0.50	1.50	3.10	1.00	0.50	1.00	1.00	1.00	1.00	1.00	
14	10	20	20	20	1.50	2.00	10.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	
15	60	70	70	70	0.50	1.00	1.67	1.00	2.00	1.00	1.00	1.00	1.00	1.00	
16	70	80	80	80	0.50	1.00	2.50	1.00	0.50	1.00	1.00	1.00	1.00	1.00	
17	65	75	75	75	0.50	1.00	2.50	1.00	0.50	1.00	1.00	1.00	1.00	1.00	
18	65	75	75	75	0.50	1.50	3.10	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
19	1	5	5	5	0.50	1.50	5.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
20	10	15	15	15	0.50	2.50	10.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
21	5	10	10	10	1.00	2.00	10.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
22	10	15	15	15	1.00	1.00	2.00	1.00	0.50	1.00	1.00	1.00	1.00	1.00	
23	5	10	10	10	0.02	1.00	2.00	1.00	0.50	1.00	1.00	1.00	1.00	1.00	
24	0.5	1	1	1	0.02	0.02	5.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
25	NE	NE	NE	NE	<u>Legend:</u>										
26	NE	NE	NE	NE			FpK-Firepower Kill								
27	NE	NE	NE	NE			MobK-Mobility Kill								
28	NM	NM	NM	NM			ComK-Commo Kill								
29	NM	NM	NM	NM			NE-No Effect								
30	OP	OP	OP	OP											
31	NM	NM	NM	NM											
32	NE	NE	NE	NE			NM-Near Miss								
33	NE	NE	NE	NE			OP-Optical Reset								
34	NE	NE	NE	NE			Ft-Front Aspect								
HUTT Aspect Angle Modifier (Main Gun Direction)					Rt-Right Aspect										
Pos	Zone 1	Zone 2	Zone 3	Zone 4			Rr-Rear Aspect								
1-Ft	1	1	1	1			Lt-Left Aspect								
2-Rt	1.05	1	1	0.95			RtFt-Right Front Aspect								
3-Rt	1.1	1	1	0.9			RtRr-Right Rear Aspect								
4-Rt	1.1	1	0.95	0.95			LtRr-Left Rear Aspect								
5-Rr	1.1	1	0.9	1			LtFt-Left Front Aspect								
6-Lt	1.1	0.95	0.95	1											
7-Lt	1.1	0.9	1	1											
8-Lt	1.05	0.95	1	1											

ATTACHMENT 2 – VULNERABILITY/PK TABLES

BMP I Vehicle

Catastrophic P _k Factors					Ammo Factors										
MILES Code	Front Belt	R Side Belt	Rear Belt	L Side Belt	FpK	MobK	ComK	A & E	B & F	C & G	D & H	I & M	J & N	K & O	L & P
	Zone 1	Zone 2	Zone 3	Zone 4	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
00	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
01	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
02	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
03	60	80	90	80	0.50	1.50	1.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
04	40	50	70	50	1.00	2.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
05	1	1	1	1	0.02	100.00	0.02	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
06	NE	NE	NE	NE	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00	
07	70	90	100	90	0.50	1.50	1.00	1.00	1.25	1.00	1.00	1.00	1.00	1.00	
08	60	80	90	80	0.50	1.50	1.67	1.00	1.50	1.00	1.00	1.00	1.00	1.00	
09	25	20	30	20	2.50	3.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
10	80	90	100	90	0.50	2.00	2.50	1.00	0.50	1.00	1.00	1.00	1.00	1.00	
11	NE	NE	NE	NE	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00	
12	70	80	90	80	0.50	2.00	2.50	1.00	0.50	1.00	1.00	1.00	1.00	1.00	
13	65	75	85	75	0.50	2.00	2.50	1.00	0.50	1.00	1.00	1.00	1.00	1.00	
14	10	20	30	20	1.00	2.00	10.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	
15	60	70	80	70	0.50	1.00	1.67	1.00	2.00	1.00	1.00	1.00	1.00	1.00	
16	70	80	90	80	0.50	2.00	2.50	1.00	0.50	1.00	1.00	1.00	1.00	1.00	
17	65	75	85	75	0.50	2.00	3.00	1.00	0.50	1.00	1.00	1.00	1.00	1.00	
18	65	75	85	75	0.50	2.00	3.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
19	1	5	10	5	0.50	1.00	8.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
20	10	15	20	15	1.00	2.50	10.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	
21	5	10	15	10	2.00	2.00	10.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
22	10	15	20	15	1.00	1.00	2.00	1.00	0.50	1.00	1.00	1.00	1.00	1.00	
23	5	10	15	10	0.02	1.00	2.00	1.00	0.50	1.00	1.00	1.00	1.00	1.00	
24	0.5	1	2	1	0.02	0.02	5.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
25	NE	NE	NE	NE	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00	
26	NE	NE	NE	NE	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00	
27	NE	NE	NE	NE	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00	
28	NM	NM	NM	NM	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00	
29	NM	NM	NM	NM	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00	
30	OP	OP	OP	OP	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00	
31	NM	NM	NM	NM	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00	
32	NE	NE	NE	NE	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00	
33	NE	NE	NE	NE	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00	
34	NE	NE	NE	NE	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00	

HUTT Aspect Angle Modifier (Main Gun Direction)

Posit	Zone 1	Zone 2	Zone 3	Zone 4
1-Ft	1	1	1	1
2-RtF	1.05	1.1	0.75	1.1
3-Rt	1.1	1.2	0.8	1.1
4-RtF	1.15	1.1	0.9	1.15
5-Rr	1.2	1	0.7	1
6-LtR	1.15	1.15	0.9	1.1
7-Lt	1.1	1.1	0.8	1.2
8-LtF	1.05	1.15	0.75	1.15

Legend: FpK-Firepower Kill
 MobK-Mobility Kill
 ComK-Commo Kill
 NE-No Effect
 NM-Near Miss
 OP-Optical Reset
 Ft-Front Aspect
 Rt-Right Aspect
 Rr-Rear Aspect
 Lt-Left Aspect
 RtFt-Right Front Aspect
 RtRr-Right Rear Aspect
 LtRr-Left Rear Aspect
 LtFt-Left Front Aspect

ATTACHMENT 2 – VULNERABILITY/PK TABLES

M1974 (2SI) Vehicle

Catastrophic P _k Factors					Ammo Factors															
MILES Code	Front Belt	R Side Belt	Rear Belt	L Side Belt	Sub P _k Factors			FpK	MobK	ComK	A & E	B & F	C & G	D & H	I & M	J & N	K & O	L & P		
	Zone 1	Zone 2	Zone 3	Zone 4																
00	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
01	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
02	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
03	80	90	80	90	0.50	1.00	1.50	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
04	50	70	50	70	0.02	100.00	0.02	---	---	---	---	---	---	---	1.00	1.00	1.00			
05	1	1	1	1	---	---	---	0.50	1.20	1.20	1.00	1.25	1.00	1.00	1.00	1.00	1.00			
06	NE	NE	NE	NE	0.50	1.00	1.20	2.50	3.00	2.00	1.00	1.50	1.00	1.00	1.00	1.00	1.00			
07	90	100	90	100	0.50	1.00	1.20	0.50	1.50	2.00	1.00	1.25	1.00	1.00	1.00	1.00	1.00			
08	80	90	80	90	0.50	1.00	1.20	2.00	1.00	5.00	0.50	1.00	1.50	1.00	1.00	1.00	1.00			
09	25	20	30	20	0.50	1.50	2.00	0.50	1.00	1.50	1.00	2.00	1.00	1.00	1.00	1.00	1.00			
10	90	100	90	100	---	---	---	0.50	1.50	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
11	NE	NE	NE	NE	0.50	1.50	2.00	0.50	1.50	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
12	80	90	80	90	0.50	1.50	2.00	0.50	1.50	2.70	1.00	0.50	1.00	1.00	1.00	1.00	1.00			
13	75	85	75	85	0.50	1.50	2.70	2.00	1.00	5.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00			
14	20	30	20	30	0.50	1.00	1.50	0.50	1.00	1.50	1.00	2.00	1.00	1.00	1.00	1.00	1.00			
15	70	80	70	80	0.50	1.00	1.50	0.50	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00			
16	80	90	80	90	0.50	1.00	1.50	0.50	1.00	2.50	1.00	0.50	1.00	1.00	1.00	1.00	1.00			
17	75	85	75	85	0.50	1.00	2.50	0.50	1.00	2.70	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
18	75	85	75	85	0.50	1.00	5.00	0.50	1.00	5.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
19	5	10	5	10	0.50	1.50	5.00	1.00	2.00	6.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
20	15	20	15	20	1.00	2.00	6.67	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
21	10	15	10	15	1.00	1.00	2.00	1.00	1.00	2.00	1.00	0.50	1.00	1.00	1.00	1.00	1.00			
22	15	20	15	20	1.00	1.00	2.00	0.50	1.00	2.00	1.00	0.50	1.00	1.00	1.00	1.00	1.00			
23	10	15	10	15	0.50	1.00	2.00	0.50	1.00	2.00	1.00	0.50	1.00	1.00	1.00	1.00	1.00			
24	1	2	1	2	0.02	0.02	5.00	0.02	0.02	5.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
25	NE	NE	NE	NE	---	---	---	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
26	NE	NE	NE	NE	---	---	---	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
27	NE	NE	NE	NE	---	---	---	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
28	NM	NM	NM	NM	---	---	---	---	---	---	---	---	---	---	---	---	---			
29	NM	NM	NM	NM	---	---	---	---	---	---	---	---	---	---	---	---	---			
30	OP	OP	OP	OP	---	---	---	---	---	---	---	---	---	---	---	---	---			
31	NM	NM	NM	NM	---	---	---	---	---	---	---	---	---	---	---	---	---			
32	NE	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---			
33	NE	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---			
34	NE	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---			

HUTT Aspect Angle Modifier (Main Gun Direction)

Posit	Zone 1	Zone 2	Zone 3	Zone 4
1-Ft	1	1	1	1
2-RtF	1.05	0.95	1.05	0.95
3-Rt	1.1	0.9	1.1	0.9
4-RtF	1.05	0.95	1.05	0.95
5-Rr	1	1	1	1
6-LtR	1.05	0.95	1.05	0.95
7-Lt	1.1	0.9	1.1	0.9
8-LtF	1.05	0.95	1.05	0.95

Legend:
 FpK-Firepower Kill
 MobK-Mobility Kill
 ComK-Commo Kill
 NE-No Effect
 NM-Near Miss
 OP-Optical Reset
 Ft-Front Aspect
 Rt-Right Aspect
 Rr-Rear Aspect
 Lt-Left Aspect
 RtFt-Right Front Aspect
 RtRr-Right Rear Aspect
 LtRr-Left Rear Aspect
 LtFt-Left Front Aspect

ATTACHMENT 2 – VULNERABILITY/PK TABLES

M113 APC

MILES Code	Catastrophic P _k Factors				Sub P _k Factors								Ammo Factors							
	Front Belt	R Side Belt	Rear Belt	L Side Belt	FpK	MobK	ComK	A & E	B & F	C & G	D & H	I & M	J & N	K & O	L & P					
00	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
01	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
02	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
03	90	90	80	90	0.02	1.00	1.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
04	70	70	50	70	0.02	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
05	1	1	1	1	0.02	100.00	0.02	---	---	---	---	---	1.00	1.00	1.00	1.00				
06	NE	NE	NE	NE	---	---	---	1.00	1.12	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
07	100	100	90	100	0.02	1.00	1.20	1.00	1.25	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
08	90	90	80	90	2.50	3.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
09	25	20	30	20	0.02	1.00	1.40	1.00	0.80	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
10	100	100	90	100	---	---	---	1.00	0.80	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
11	NE	NE	NE	NE	0.02	1.00	1.40	1.00	0.80	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
12	90	90	80	90	0.02	1.00	1.67	1.00	0.80	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
13	85	85	75	85	0.02	1.00	2.00	1.00	0.80	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
14	30	30	20	30	0.02	1.00	5.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
15	80	80	70	80	0.02	1.00	1.50	1.00	0.80	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
16	90	90	80	90	0.02	1.00	1.40	1.00	0.80	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
17	85	85	75	85	0.02	1.00	1.67	1.00	0.80	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
18	85	85	75	85	0.02	1.00	1.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
19	10	10	5	10	0.02	1.50	5.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
20	20	20	15	20	0.02	3.00	6.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
21	15	15	10	15	0.02	3.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
22	20	20	15	20	0.02	2.00	3.00	1.00	0.80	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
23	15	15	10	15	0.02	2.00	5.00	1.00	0.80	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
24	2	2	1	2	0.02	3.00	10.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
25	NE	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---				
26	NE	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---				
27	NE	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---				
28	NM	NM	NM	NM	---	---	---	---	---	---	---	---	---	---	---	---				
29	NM	NM	NM	NM	---	---	---	---	---	---	---	---	---	---	---	---				
30	OP	OP	OP	OP	---	---	---	---	---	---	---	---	---	---	---	---				
31	NM	NM	NM	NM	---	---	---	---	---	---	---	---	---	---	---	---				
32	NE	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---				
33	NE	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---				
34	NE	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---				

Legend: FpK-Firepower Kill
 MobK-Mobility Kill
 ComK-Commo Kill
 NE-No Effect
 NM-Near Miss
 OP-Optical Reset

ATTACHMENT 2 – VULNERABILITY/PK TABLES

M901 ITV

Catastrophic P _k Factors				Sub P _k Factors								Ammo Factors							
MILES Code	Front Belt	R Side Belt	Rear Belt	L Side Belt	Zone 1	Zone 2	Zone 3	Zone 4	FpK	MobK	ComK	A & E	B & F	C & G	D & H	I & M	J & N	K & O	L & P
00	100	100	100	100	100				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
01	100	100	100	100	100				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
02	100	100	100	100	100				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
03	90	90	80	90	90				0.02	1.00	1.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
04	70	70	50	70	70				0.02	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
05	1	1	1	1	1				0.02	100.00	0.02	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
06	NE	NE	NE	NE	NE				---	---	---	---	---	---	1.00	1.00	1.00	1.00	
07	100	100	90	100	100				0.02	1.00	1.20	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
08	90	90	80	90	90				0.02	1.00	1.25	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
09	25	20	30	20	20				2.50	3.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
10	100	100	90	100	100				0.02	1.00	1.40	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
11	NE	NE	NE	NE	NE				---	---	---	---	---	---	1.00	1.00	1.00	1.00	
12	90	90	80	90	90				0.02	1.00	1.40	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
13	85	85	75	85	85				0.02	1.00	1.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
14	30	30	20	30	30				0.02	2.00	5.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
15	80	80	70	80	80				0.02	1.00	1.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
16	90	90	80	90	90				0.02	1.00	1.40	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
17	85	85	75	85	85				0.02	1.00	1.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
18	85	85	75	85	85				0.02	1.00	1.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
19	10	10	5	10	10				0.02	1.50	5.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
20	20	20	15	20	20				0.02	3.00	6.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
21	15	15	10	15	15				0.02	3.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
22	20	20	15	20	20				0.02	2.00	3.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
23	15	15	10	15	15				0.02	2.00	5.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
24	2	2	1	2	2				0.02	3.00	10.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
25	NE	NE	NE	NE	NE														
26	NE	NE	NE	NE	NE														
27	NE	NE	NE	NE	NE														
28	NM	NM	NM	NM	NM														
29	NM	NM	NM	NM	NM														
30	OP	OP	OP	OP	OP														
31	NM	NM	NM	NM	NM														
32	NE	NE	NE	NE	NE														
33	NE	NE	NE	NE	NE														
34	NE	NE	NE	NE	NE														

Legend: FpK-Firepower Kill
 MobK-Mobility Kill
 ComK-Commo Kill
 NE-No Effect
 NM-Near Miss
 OP-Optical Reset

ATTACHMENT 2 – VULNERABILITY/PK TABLES

ZSU 23/4 Vehicle																
MILES	Catastrophic P _k Factors				Sub P _k Factors				Ammo Factors							
	Front Belt	R Side Belt	Rear Belt	L Side Belt	FpK	MobK	ComK	A & E	B & F	C & G	D & H	I & M	J & N	K & O	L & P	
	Code	Zone 1	Zone 2	Zone 3	Zone 4											
00	100	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
01	100	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
02	100	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
03	98	98	98	98	98	0.80	1.00	1.10	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
04	75	75	75	75	75	0.80	0.50	1.34	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
05	1	1	1	1	1	0.02	100.00	0.02	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
06	NE	NE	NE	NE	NE	---	---	---	---	---	---	1.00	1.00	1.00	1.00	
07	100	100	100	100	100	1.00	1.00	1.00	1.00	1.25	1.00	1.00	1.00	1.00	1.00	
08	95	95	95	95	95	0.80	1.00	1.10	1.00	1.50	1.00	1.00	1.00	1.00	1.00	
09	25	20	30	20	20	2.50	3.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
10	100	100	100	100	100	1.00	1.00	1.00	1.00	0.50	0.40	1.00	1.00	1.00	1.00	
11	NE	NE	NE	NE	NE	---	---	---	---	---	---	1.00	1.00	1.00	1.00	
12	95	95	95	95	95	0.80	1.50	2.20	1.00	0.50	1.00	1.00	1.00	1.00	1.00	
13	90	90	90	90	90	1.00	0.50	1.20	1.00	0.50	1.00	1.00	1.00	1.00	1.00	
14	35	35	35	35	35	1.00	2.50	3.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	
15	85	85	85	85	85	0.50	1.00	1.20	1.00	2.00	1.00	1.00	1.00	1.00	1.00	
16	95	95	95	95	95	0.80	1.50	2.20	1.00	0.50	1.00	1.00	1.00	1.00	1.00	
17	90	90	90	90	90	0.50	2.00	2.20	1.00	0.50	1.00	1.00	1.00	1.00	1.00	
18	90	90	90	90	90	1.00	0.50	1.20	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
19	15	15	15	15	15	0.50	2.00	5.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
20	25	25	25	25	25	3.00	1.00	4.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
21	20	20	20	20	20	1.50	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
22	25	25	25	25	25	1.00	1.00	2.00	1.00	0.50	1.00	1.00	1.00	1.00	1.00	
23	20	20	20	20	20	0.30	1.00	2.00	1.00	0.50	1.00	1.00	1.00	1.00	1.00	
24	3	3	3	3	3	0.02	0.02	5.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
25	NE	NE	NE	NE	NE											
26	NE	NE	NE	NE	NE											
27	NE	NE	NE	NE	NE											
28	NM	NM	NM	NM	NM											
29	NM	NM	NM	NM	NM											
30	OP	OP	OP	OP	OP											
31	NM	NM	NM	NM	NM											
32	NE	NE	NE	NE	NE											
33	NE	NE	NE	NE	NE											
34	NE	NE	NE	NE	NE											
HUTT Aspect Angle Modifier (Main Gun Direction)																
Pos	Zone 1	Zone 2	Zone 3	Zone 4												
1-Ft	1	1	1	1												
2-Rt	1	1	1	1												
3-Rt	1	1	1	1												
4-Rt	1	1	1	1												
5-Rr	1	1	1	1												
6-LtR	1	1	1	1												
7-Lt	1	1	1	1												
8-LtF	1	1	1	1												

Legend: FpK-Firepower Kill

MobK-Mobility Kill

ComK-Commo Kill

NE-No Effect

NM-Near Miss

OP-Optical Reset

Ft-Front Aspect

Rt-Right Aspect

Rr-Rear Aspect

Lt-Left Aspect

RtFt-Right Front Aspect

RtRr-Right Rear Aspect

LtRr-Left Rear Aspect

LtFt-Left Front Aspect

ATTACHMENT 2 – VULNERABILITY/PK TABLES

M551 Vehicle

MILES Code	Catastrophic P _k Factors				Sub P _k Factors								Ammo Factors							
	Front Belt Zone 1	R Side Belt Zone 2	Rear Belt Zone 3	L Side Belt Zone 4	FpK	MobK	ComK	A & E	B & F	C & G	D & H	I & M	J & N	K & O	L & P					
00	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
01	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
02	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
03	90	90	90	90	0.50	1.00	1.20	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
04	70	70	70	70	0.80	1.00	1.50	0.02	100.00	0.02	1.00	1.00	1.00	1.00	1.00	1.00				
05	1	1	1	1	---	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00	1.00				
06	NE	NE	NE	NE	---	---	---	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
07	100	100	100	100	1.00	1.00	1.00	1.00	1.25	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
08	90	90	90	90	0.50	1.00	1.20	1.00	1.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
09	25	20	30	20	2.50	3.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
10	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
11	NE	NE	NE	NE	---	---	---	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
12	90	90	90	90	0.50	1.50	2.30	1.00	0.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
13	85	85	85	85	0.50	2.00	5.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
14	30	30	30	30	2.00	1.00	3.34	0.50	1.00	1.25	1.00	2.00	1.00	1.00	1.00	1.00				
15	80	80	80	80	0.50	1.50	2.30	1.00	0.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
16	90	90	90	90	0.50	1.50	2.30	1.00	0.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
17	85	85	85	85	0.50	1.50	2.40	1.00	1.00	1.20	1.00	0.50	1.00	1.00	1.00	1.00				
18	85	85	85	85	0.50	2.00	5.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
19	10	10	10	10	2.00	1.50	5.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
20	20	20	20	20	2.00	1.50	5.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
21	15	15	15	15	2.00	1.50	5.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
22	20	20	20	20	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
23	15	15	15	15	1.00	1.00	2.00	1.00	0.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
24	2	2	2	2	0.02	0.02	5.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
25	NE	NE	NE	NE	---	---	---	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
26	NE	NE	NE	NE	---	---	---	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
27	NE	NE	NE	NE	---	---	---	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
28	NM	NM	NM	NM	OP	OP	OP	OP	OP	OP	OP	OP	OP	OP	OP	OP				
29	NM	NM	NM	NM	---	---	---	---	---	---	---	---	---	---	---	---				
30	OP	OP	OP	OP	---	---	---	---	---	---	---	---	---	---	---	---				
31	NM	NM	NM	NM	---	---	---	---	---	---	---	---	---	---	---	---				
32	NE	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---				
33	NE	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---				
34	NE	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---				

HUTT Aspect Angle Modifier (Main Gun Direction)

Posit	Zone 1	Zone 2	Zone 3	Zone 4
1-Ft	1	1	1	1
2-RtF	1	1	1	1
3-Rt	1	1	1	1
4-RtR	1	1	1	1
5-Rr	1	1	1	1
6-LtR	1	1	1	1
7-Lt	1	1	1	1
8-LtF	1	1	1	1

Legend:

- FpK-Firepower Kill
- MobK-Mobility Kill
- ComK-Commo Kill
- NE-No Effect
- NM-Near Miss
- OP-Optical Reset
- Ft-Front Aspect
- Rt-Right Aspect
- Rr-Rear Aspect
- Lt-Left Aspect
- RtFt-Right Front Aspect
- RtRr-Right Rear Aspect
- LtRr-Left Rear Aspect
- LtFt-Left Front Aspect

ATTACHMENT 2 – VULNERABILITY/PK TABLES

BRDM II Vehicle

Catastrophic P _k Factors				Sub P _k Factors								Ammo Factors							
MILES Code	Front Belt	R Side Belt	Rear Belt	L Side Belt	FpK	MobK	ComK	A & E	B & F	C & G	D & H	I & M	J & N	K & O	L & P				
00	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
01	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
02	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
03	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
04	80	80	80	80	1.00	1.00	1.25	0.02	10.00	0.02	---	---	---	---	1.00	1.00			
05	10	10	10	10	---	---	---	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
06	NE	NE	NE	NE	---	---	---	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
07	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
08	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
09	25	20	30	20	2.50	3.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
10	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
11	NE	NE	NE	NE	---	---	---	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
12	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
13	95	95	95	95	0.50	1.00	1.10	2.00	1.00	2.50	0.50	1.00	1.20	1.00	1.00	1.00			
14	40	40	40	40	0.50	1.00	1.10	2.00	1.00	2.50	0.50	1.00	1.10	1.00	1.00	1.00			
15	90	90	90	90	0.50	1.00	1.10	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
16	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
17	95	95	95	95	0.50	1.00	1.10	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
18	95	95	95	95	0.50	1.00	1.10	0.50	2.00	4.00	1.00	2.50	3.34	1.00	1.00	1.00			
19	20	20	20	20	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
20	30	30	30	30	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
21	25	25	25	25	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
22	30	30	30	30	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
23	25	25	25	25	0.50	1.00	4.00	0.50	1.00	5.00	1.00	1.00	1.00	1.00	1.00	1.00			
24	4	4	4	4	0.50	0.50	5.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
25	NE	NE	NE	NE	---	---	---	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
26	NE	NE	NE	NE	---	---	---	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
27	NE	NE	NE	NE	---	---	---	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
28	NM	NM	NM	NM	---	---	---	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
29	NM	NM	NM	NM	---	---	---	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
30	OP	OP	OP	OP	---	---	---	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
31	NM	NM	NM	NM	---	---	---	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
32	NE	NE	NE	NE	---	---	---	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
33	NE	NE	NE	NE	---	---	---	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
34	NE	NE	NE	NE	---	---	---	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			

HUTT Aspect Angle Modifier (Main Gun Direction)

Posit	Zone 1	Zone 2	Zone 3	Zone 4
1-Ft	1	1	1	1
2-RtF	1	1	1	1
3-Rt	1	1	1	1
4-RtR	1	1	1	1
5-Rr	1	1	1	1
6-LtR	1	1	1	1
7-Lt	1	1	1	1
8-LtF	1	1	1	1

Legend:

- FpK-Firepower Kill
- MobK-Mobility Kill
- ComK-Commo Kill
- NE-No Effect
- NM-Near Miss
- OP-Optical Reset
- Ft-Front Aspect
- Rt-Right Aspect
- Rr-Rear Aspect
- Lt-Left Aspect
- RtFt-Right Front Aspect
- RtRr-Right Rear Aspect
- LtRr-Left Rear Aspect
- LtFt-Left Front Aspect

ATTACHMENT 2 – VULNERABILITY/PK TABLES

HMMWV Vehicle

Catastrophic P _k Factors				Sub P _k Factors								Ammo Factors							
MILES Code	Front Belt	R Side Belt	Rear Belt	L Side Belt	Zone 1	Zone 2	Zone 3	Zone 4	FpK	MobK	ComK	A & E	B & F	C & G	D & H	I & M	J & N	K & O	L & P
00	100	100	100	100					1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
01	100	100	100	100					1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
02	100	100	100	100					1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
03	100	100	100	100					1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
04	90	90	90	90					0.02	1.00	1.20	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
05	90	90	90	90					0.02	1.20	0.02	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
06	NE	NE	NE	NE					---	---	---	---	---	---	1.00	1.00	1.00	1.00	
07	100	100	100	100					1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
08	100	100	100	100					1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
09	25	20	30	20					2.50	3.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
10	100	100	100	100					1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
11	NE	NE	NE	NE					---	---	---	---	---	---	1.00	1.00	1.00	1.00	
12	100	100	100	100					1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
13	100	100	100	100					1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
14	60	60	60	60					0.02	1.60	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
15	100	100	100	100					1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
16	100	100	100	100					1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
17	100	100	100	100					1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
18	100	100	100	100					1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
19	50	50	50	50					0.02	1.50	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
20	80	80	80	80					0.02	1.20	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
21	35	35	35	35					0.02	1.00	3.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
22	40	40	40	40					0.02	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
23	35	35	35	35					0.02	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
24	15	15	15	15					0.02	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
25	NE	NE	NE	NE					---	---	---	---	---	---	1.00	1.00	1.00	1.00	
26	NE	NE	NE	NE					---	---	---	---	---	---	1.00	1.00	1.00	1.00	
27	NE	NE	NE	NE					---	---	---	---	---	---	1.00	1.00	1.00	1.00	
28	NM	NM	NM	NM					---	---	---	---	---	---	1.00	1.00	1.00	1.00	
29	NM	NM	NM	NM					---	---	---	---	---	---	1.00	1.00	1.00	1.00	
30	OP	OP	OP	OP					---	---	---	---	---	---	1.00	1.00	1.00	1.00	
31	NM	NM	NM	NM					---	---	---	---	---	---	1.00	1.00	1.00	1.00	
32	NE	NE	NE	NE					---	---	---	---	---	---	1.00	1.00	1.00	1.00	
33	NE	NE	NE	NE					---	---	---	---	---	---	1.00	1.00	1.00	1.00	
34	NE	NE	NE	NE					---	---	---	---	---	---	1.00	1.00	1.00	1.00	

Legend: FpK-Firepower Kill
 MobK-Mobility Kill
 ComK-Commo Kill
 NE-No Effect
 NM-Near Miss
 OP-Optical Reset

ATTACHMENT 2 – VULNERABILITY/PK TABLES

Heavy Armor ITS

Catastrophic P _k Factors					Sub P _k Factors			Ammo Factors							
MILES Code	Front Belt	R Side Belt	Rear Belt	L Side Belt	FpK	MobK	ComK	A & E	B & F	C & G	D & H	I & M	J & N	K & O	L & P
00	100	100	100	100	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
01	100	100	100	100	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
02	100	100	100	100	0.00	1.25	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
03	70	70	70	70	0.00	2.00	5.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
04	10	10	10	10	0.00	4.00	8.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
05	1	1	1	1	0.00	200.00	0.05	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
06	TBD	TBD	TBD	TBD	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
07	80	80	80	80	0.00	2.00	1.00	1.00	1.25	1.00	1.00	1.00	1.00	1.00	1.00
08	40	40	40	40	0.00	4.00	10.00	1.00	1.50	1.00	1.00	1.00	1.00	1.00	1.00
09	70	70	70	70	0.02	1.20	1.20	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
10	80	80	80	80	0.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
11	NE	NE	NE	NE	---	---	---	1.00	0.50	1.00	1.00	1.00	1.00	1.00	1.00
12	61	61	61	61	0.00	2.25	10.00	1.00	0.50	1.00	1.00	1.00	1.00	1.00	1.00
13	6	6	6	6	0.00	4.00	10.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
14	10	10	10	10	0.00	3.00	10.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
15	20	20	20	20	0.00	4.00	10.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
16	61	61	61	61	0.00	1.50	5.00	1.00	0.50	1.00	1.00	1.00	1.00	1.00	1.00
17	25	25	25	25	0.00	3.00	10.00	1.00	0.50	1.00	1.00	1.00	1.00	1.00	1.00
18	6	6	6	6	0.00	4.00	10.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
19	2	2	2	2	0.00	0.50	5.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
20	10	10	10	10	0.00	3.00	10.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
21	5	5	5	5	0.00	5.00	33.30	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
22	0.5	0.5	0.5	0.5	0.00	0.50	5.00	1.00	0.50	1.00	1.00	1.00	1.00	1.00	1.00
23	0.5	0.5	0.5	0.5	0.00	0.50	5.00	1.00	0.50	1.00	1.00	1.00	1.00	1.00	1.00
24	0.5	0.5	0.5	0.5	0.00	0.02	4.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
25	NE	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---
26	NE	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---
27	NE	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---
28	NM	NM	NM	NM	---	---	---	---	---	---	---	---	---	---	---
29	NE	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---
30	OP	OP	OP	OP	---	---	---	---	---	---	---	---	---	---	---
31	NM	NM	NM	NM	---	---	---	---	---	---	---	---	---	---	---
32	NE	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---
33	NE	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---
34	NE	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---

Legend:

- FpK-Firepower Kill
- MobK-Mobility Kill
- ComK-Commo Kill
- NE-No Effect
- NM-Near Miss
- OP-Optical Reset
- Ft-Front Aspect
- Rt-Right Aspect
- Rr-Rear Aspect
- Lt-Left Aspect
- RtFt-Right Front Aspect
- RtRr-Right Rear Aspect
- LtRr-Left Rear Aspect
- LtFt-Left Front Aspect

ATTACHMENT 2 – VULNERABILITY/PK TABLES

Medium Armor ITS

Catastrophic P _k Factors					Sub P _k Factors					Ammo Factors							
MILES Code	Front Belt	R Side Belt	Rear Belt	L Side Belt	FpK	MobK	ComK	A & E	B & F	C & G	D & H	I & M	J & N	K & O	L & P		
Zone 1	Zone 2	Zone 3	Zone 4					1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
00	100	100	100	100	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
01	100	100	100	100	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
02	100	100	100	100	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
03	90	90	90	90	0.00	1.00	1.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
04	70	70	70	70	0.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
05	1	1	1	1	0.00	100.00	0.02	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
06	TBD	TBD	TBD	TBD	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
07	100	100	100	100	0.00	1.00	1.20	1.00	1.12	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
08	90	90	90	90	0.00	1.00	1.25	1.00	1.25	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
09	90	90	90	90	0.02	1.20	1.20	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
10	99	99	99	99	0.00	1.00	1.40	0.80	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
11	NE	NE	NE	NE	---	---	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00	1.00
12	90	90	90	90	0.00	1.00	1.40	0.80	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
13	85	85	85	85	0.00	1.00	1.67	0.80	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
14	30	30	30	30	0.00	2.00	5.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
15	80	80	80	80	0.00	1.00	1.50	0.80	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
16	90	90	90	90	0.00	1.00	1.40	0.80	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
17	85	85	85	85	0.00	1.00	1.67	0.80	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
18	85	85	85	85	0.00	1.00	1.67	0.80	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
19	10	10	10	10	0.00	1.50	5.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
20	20	20	20	20	0.00	3.00	6.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
21	15	15	15	15	0.00	3.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
22	20	20	20	20	0.00	2.00	3.00	0.80	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
23	15	15	15	15	0.00	2.00	5.00	0.80	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
24	1	1	1	1	0.00	3.00	10.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
25	NE	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	
26	NE	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	
27	NE	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	
28	NM	NM	NM	NM	---	---	---	---	---	---	---	---	---	---	---	---	
29	NM	NM	NM	NM	---	---	---	---	---	---	---	---	---	---	---	---	
30	OP	OP	OP	OP	---	---	---	---	---	---	---	---	---	---	---	---	
31	NM	NM	NM	NM	---	---	---	---	---	---	---	---	---	---	---	---	
32	NE	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	
33	NE	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	
34	NE	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	

Legend: FpK-Firepower Kill
 MobK-Mobility Kill
 ComK-Commo Kill
 NE-No Effect
 NM-Near Miss
 OP-Optical Reset
 Ft-Front Aspect
 Rt-Right Aspect
 Rr-Rear Aspect
 Lt-Left Aspect
 RtFt-Right Front Aspect
 RtRr-Right Rear Aspect
 LtRr-Left Rear Aspect
 LtFt-Left Front Aspect

ATTACHMENT 2 – VULNERABILITY/PK TABLES

Non-Armor ITS

Catastrophic P_k Factors					Sub P_k Factors								Ammo Factors							
MILES	Front Belt	R Side Belt	Rear Belt	L Side Belt	FpK	MobK	ComK	A & E	B & F	C & G	D & H	I & M	J & N	K & O	L & P					
Code	Zone 1	Zone 2	Zone 3	Zone 4	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					
00	100	100	100	100	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
01	100	100	100	100	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
02	100	100	100	100	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
03	100	100	100	100	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
04	100	100	100	100	0.00	1.00	1.20	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
05	100	100	100	100	0.00	100.00	0.02	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
06	TBD	TBD	TBD	TBD	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
07	100	100	100	100	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
08	100	100	100	100	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
09	100	100	100	100	0.02	1.20	1.20	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
10	100	100	100	100	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
11	86	86	86	86	---	---	---	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
12	97	97	97	97	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
13	97	97	97	97	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
14	97	97	97	97	0.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
15	97	97	97	97	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
16	97	97	97	97	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
17	97	97	97	97	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
18	97	97	97	97	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
19	57	57	57	57	0.00	1.50	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
20	81	81	81	81	0.00	3.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
21	84.5	84.5	84.5	84.5	0.00	3.00	3.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
22	44	44	44	44	0.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
23	44	44	44	44	0.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
24	20	20	20	20	0.00	3.00	7.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
25	NE	NE	NE	NE																
26	NE	NE	NE	NE																
27	5	5	5	5																
28	NM	NM	NM	NM																
29	NM	NM	NM	NM																
30	OP	OP	OP	OP																
31	NM	NM	NM	NM																
32	NE	NE	NE	NE																
33	NE	NE	NE	NE																
34	NE	NE	NE	NE																

Legend: FpK-Firepower Kill
 MobK-Mobility Kill
 ComK-Commo Kill
 NE-No Effect
 NM-Near Miss
 OP-Optical Reset
 Ft-Front Aspect
 Rt-Right Aspect
 Rr-Rear Aspect
 Lt-Left Aspect
 RtFt-Right Front Aspect
 RtRr-Right Rear Aspect
 LtRr-Left Rear Aspect
 LtFt-Left Front Aspect

ATTACHMENT 2 – VULNERABILITY/PK TABLES

AAV-P

MILES Code	Catastrophic P _k Factors				Sub P _k Factors			Ammo Factors							
	Front Belt	R Side Belt	Rear Belt	L Side Belt	FpK	MobK	ComK	A & E	B & F	C & G	D & H	I & M	J & N	K & O	L & P
	Zone 1	Zone 2	Zone 3	Zone 4	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
00	100	100	100	100	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
01	100	100	100	100	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
02	100	100	100	100	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
03	90	90	90	90	0.00	1.00	1.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
04	70	70	50	70	0.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
05	1	1	1	1	0.00	100.00	0.02	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
06	TBD	TBD	TBD	TBD	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
07	100	100	90	100	0.00	1.00	1.20	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
08	90	90	80	90	0.00	1.00	1.25	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
09	80	80	70	80	0.00	0.50	1.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
10	100	100	90	100	0.00	1.00	1.40	1.00	0.80	1.00	1.00	1.00	1.00	1.00	1.00
11	86	86	86	86	---	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00
12	90	90	80	90	0.00	1.00	1.40	1.00	0.80	1.00	1.00	1.00	1.00	1.00	1.00
13	85	85	75	85	0.00	1.00	1.67	1.00	0.80	1.00	1.00	1.00	1.00	1.00	1.00
14	30	30	20	30	0.00	2.00	5.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
15	80	80	70	80	0.00	1.00	1.50	1.00	0.80	1.00	1.00	1.00	1.00	1.00	1.00
16	90	90	80	90	0.00	1.00	1.40	1.00	0.80	1.00	1.00	1.00	1.00	1.00	1.00
17	85	85	75	85	0.00	1.00	1.67	1.00	0.80	1.00	1.00	1.00	1.00	1.00	1.00
18	85	85	75	85	0.00	1.00	1.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
19	10	6	10	10	0.00	1.50	5.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
20	20	20	15	20	0.00	3.00	6.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
21	15	15	10	15	0.00	3.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
22	20	20	15	20	0.00	2.00	3.00	1.00	0.80	1.00	1.00	1.00	1.00	1.00	1.00
23	15	15	10	15	0.00	2.00	5.00	1.00	0.80	1.00	1.00	1.00	1.00	1.00	1.00
24	1	1	0.5	1	0.00	3.00	10.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
25	NE	NE	NE	NE											
26	NE	NE	NE	NE											
27	NE	NE	NE	NE											
28	NM	NM	NM	NM											
29	NE	NE	NE	NE											
30	OP	OP	OP	OP											
31	NM	NM	NM	NM											
32	NE	NE	NE	NE											
33	NE	NE	NE	NE											
34	NE	NE	NE	NE											

Legend:

- FpK-Firepower Kill
- MobK-Mobility Kill
- ComK-Commo Kill
- NE-No Effect
- NM-Near Miss
- OP-Optical Reset
- Ft-Front Aspect
- Rt-Right Aspect
- Rr-Rear Aspect
- Lt-Left Aspect
- RtFt-Right Front Aspect
- RtRr-Right Rear Aspect
- LtRr-Left Rear Aspect
- LtFt-Left Front Aspect

ATTACHMENT 2 – VULNERABILITY/PK TABLES

AAV-CC

Catastrophic P _k Factors					Ammo Factors										
MILES Code	Front Belt	R Side Belt	Rear Belt	L Side Belt	FpK	MobK	ComK	A & E	B & F	C & G	D & H	I & M	J & N	K & O	L & P
00	100	100	100	100	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
01	100	100	100	100	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
02	100	100	100	100	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
03	90	90	80	90	0.00	1.00	1.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
04	70	70	50	70	0.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
05	1	1	1	1	0.00	100.00	0.02	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
06	TBD	TBD	TBD	TBD	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
07	100	100	90	100	0.00	1.00	1.20	1.00	1.12	1.00	1.00	1.00	1.00	1.00	
08	90	90	80	90	0.00	1.00	1.25	1.00	1.25	1.00	1.00	1.00	1.00	1.00	
09	80	80	70	80	0.00	0.50	1.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
10	100	100	90	100	0.00	1.00	1.40	1.00	0.80	1.00	1.00	1.00	1.00	1.00	
11	NE	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	
12	90	90	80	90	0.00	1.00	1.40	1.00	0.80	1.00	1.00	1.00	1.00	1.00	
13	85	85	75	85	0.00	1.00	1.67	1.00	0.80	1.00	1.00	1.00	1.00	1.00	
14	30	30	20	30	0.00	2.00	5.00	1.00	0.80	1.00	1.00	1.00	1.00	1.00	
15	80	80	70	80	0.00	1.00	1.50	1.00	2.00	1.00	1.00	1.00	1.00	1.00	
16	90	90	80	90	0.00	1.00	1.40	1.00	0.80	1.00	1.00	1.00	1.00	1.00	
17	85	85	75	85	0.00	1.00	1.67	1.00	0.80	1.00	1.00	1.00	1.00	1.00	
18	85	85	75	85	0.00	1.00	1.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
19	10	6	10	10	0.00	1.50	5.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
20	20	20	15	20	0.00	3.00	6.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
21	15	15	10	15	0.00	3.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
22	20	20	15	20	0.00	2.00	3.00	1.00	0.80	1.00	1.00	1.00	1.00	1.00	
23	15	15	10	15	0.00	2.00	5.00	1.00	0.80	1.00	1.00	1.00	1.00	1.00	
24	1	1	0.5	1	0.00	3.00	10.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
25	NE	NE	NE	NE											
26	NE	NE	NE	NE											
27	NE	NE	NE	NE											
28	NM	NM	NM	NM											
29	NE	NE	NE	NE											
30	OP	OP	OP	OP											
31	NM	NM	NM	NM											
32	NE	NE	NE	NE											
33	NE	NE	NE	NE											
34	NE	NE	NE	NE											

Legend: FpK-Firepower Kill
 MobK-Mobility Kill
 ComK-Commo Kill
 NE-No Effect
 NM-Near Miss
 OP-Optical Reset
 Ft-Front Aspect
 Rt-Right Aspect
 Rr-Rear Aspect
 Lt-Left Aspect
 RtFt-Right Front Aspect
 RtRr-Right Rear Aspect
 LtRr-Left Rear Aspect
 LtFt-Left Front Aspect

ATTACHMENT 2 – VULNERABILITY/PK TABLES

LAV-25

Catastrophic P _k Factors				Sub P _k Factors			Ammo Factors												
MILES Code	Front Belt	R Side Belt	Rear Belt	L Side Belt	Zone 1	Zone 2	Zone 3	Zone 4	FpK	MobK	ComK	A & E	B & F	C & G	D & H	I & M	J & N	K & O	L & P
00	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
01	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
02	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
03	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
04	80	80	80	80	1.00	1.00	1.00	1.25	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
05	10	10	10	10	0.02	1.10	0.02	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
06	TBD	TBD	TBD	TBD	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
07	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
08	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
09	90	90	90	90	0.50	0.50	1.20	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
10	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
11	NE	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
12	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
13	95	95	95	95	0.50	1.00	1.10	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
14	40	40	40	40	2.00	1.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
15	90	90	90	90	0.50	1.00	1.20	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
16	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
17	95	95	95	95	0.50	1.00	1.10	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
18	95	95	95	95	0.50	1.00	1.10	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
19	20	20	20	20	0.50	2.00	4.00	1.00	2.50	3.34	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
20	30	30	30	30	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
21	25	25	25	25	1.00	1.00	4.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
22	30	30	30	30	1.00	1.00	1.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
23	25	25	25	25	0.50	1.00	4.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
24	2	2	2	2	0.50	0.50	5.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
25	NE	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
26	NE	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
27	NE	NE	NE	NE	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
28	NM	NM	NM	NM	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
29	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
30	OP	OP	OP	OP	OP	OP	OP	OP	OP	OP	OP	OP	OP	OP	OP	OP	OP	OP	
31	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
32	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
33	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
34	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	

Legend: FpK-Firepower Kill
 MobK-Mobility Kill
 ComK-Commo Kill
 NE-No Effect
 NM-Near Miss
 OP-Optical Reset
 Ft-Front Aspect
 Rt-Right Aspect
 Rr-Rear Aspect
 Lt-Left Aspect
 RtFt-Right Front Aspect
 RtRr-Right Rear Aspect
 LtRr-Left Rear Aspect
 LtFt-Left Front Aspect

ATTACHMENT 2 – VULNERABILITY/PK TABLES

LAV-AT

MILES Code	Catastrophic P _k Factors				Sub P _k Factors			Ammo Factors							
	Front Belt	R Side Belt	Rear Belt	L Side Belt	FpK	MobK	ComK	A & E	B & F	C & G	D & H	I & M	J & N	K & O	L & P
	Zone 1	Zone 2	Zone 3	Zone 4	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
00	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
01	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
02	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
03	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
04	80	80	80	80	1.00	1.00	1.25	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
05	10	10	10	10	0.02	1.10	0.02	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
06	TBD	TBD	TBD	TBD	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
07	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
08	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
09	90	90	90	90	0.50	0.50	1.20	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
10	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
11	NE	NE	NE	NE	---	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00
12	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
13	95	95	95	95	0.50	1.00	1.10	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
14	40	40	40	40	2.00	1.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
15	90	90	90	90	0.50	1.00	1.20	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
16	100	100	100	100	0.50	1.00	1.10	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
17	95	95	95	95	0.50	1.00	1.10	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
18	95	95	95	95	0.50	1.00	1.10	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
19	20	20	20	20	0.50	2.00	4.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
20	30	30	30	30	1.00	2.50	3.34	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
21	25	25	25	25	1.00	1.00	4.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
22	30	30	30	30	1.00	1.00	1.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
23	25	25	25	25	0.50	1.00	4.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
24	2	2	2	2	0.50	0.50	5.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
25	NE	NE	NE	NE	---	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00
26	NE	NE	NE	NE	---	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00
27	NE	NE	NE	NE	---	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00
28	NM	NM	NM	NM	---	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00
29	NE	NE	NE	NE	---	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00
30	OP	OP	OP	OP	---	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00
31	NM	NM	NM	NM	---	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00
32	NE	NE	NE	NE	---	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00
33	NE	NE	NE	NE	---	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00
34	NE	NE	NE	NE	---	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00

Legend: FpK-Firepower Kill
 MobK-Mobility Kill
 ComK-Commo Kill
 NE-No Effect
 NM-Near Miss
 OP-Optical Reset
 Ft-Front Aspect
 Rt-Right Aspect
 Rr-Rear Aspect
 Lt-Left Aspect
 RtFt-Right Front Aspect
 RtRr-Right Rear Aspect
 LtRr-Left Rear Aspect
 LtFt-Left Front Aspect

ATTACHMENT 2 – VULNERABILITY/PK TABLES

LAV-M

MILES Code	Catastrophic P _k Factors				Sub P _k Factors			Ammo Factors								
	Front Belt	R Side Belt	Rear Belt	L Side Belt	FpK	MobK	ComK	A & E	B & F	C & G	D & H	I & M	J & N	K & O	L & P	
	Zone 1	Zone 2	Zone 3	Zone 4	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
00	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
01	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
02	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
03	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
04	80	80	80	80	1.00	1.00	1.25	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
05	10	10	10	10	0.02	1.10	0.02	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
06	TBD	TBD	TBD	TBD	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
07	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
08	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
09	90	90	90	90	0.50	0.50	1.20	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
10	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
11	NE	NE	NE	NE	---	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00	1.00
12	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
13	95	95	95	95	0.50	1.00	1.10	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
14	40	40	40	40	2.00	1.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
15	90	90	90	90	0.50	1.00	1.20	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
16	100	100	100	100	0.50	1.00	1.10	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
17	95	95	95	95	0.50	1.00	1.10	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
18	95	95	95	95	0.50	1.00	1.10	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
19	20	20	20	20	0.50	2.00	4.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
20	30	30	30	30	1.00	2.50	3.34	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
21	25	25	25	25	1.00	1.00	4.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
22	30	30	30	30	1.00	1.00	1.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
23	25	25	25	25	0.50	1.00	4.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
24	2	2	2	2	0.50	0.50	5.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
25	NE	NE	NE	NE	---	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00	1.00
26	NE	NE	NE	NE	---	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00	1.00
27	NE	NE	NE	NE	---	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00	1.00
28	NM	NM	NM	NM	---	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00	1.00
29	NE	NE	NE	NE	---	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00	1.00
30	OP	OP	OP	OP	---	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00	1.00
31	NM	NM	NM	NM	---	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00	1.00
32	NE	NE	NE	NE	---	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00	1.00
33	NE	NE	NE	NE	---	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00	1.00
34	NE	NE	NE	NE	---	---	---	---	---	---	1.00	1.00	1.00	1.00	1.00	1.00

Legend: FpK-Firepower Kill
 MobK-Mobility Kill
 ComK-Commo Kill
 NE-No Effect
 NM-Near Miss
 OP-Optical Reset
 Ft-Front Aspect
 Rt-Right Aspect
 Rr-Rear Aspect
 Lt-Left Aspect
 RtFt-Right Front Aspect
 RtRr-Right Rear Aspect
 LtRr-Left Rear Aspect
 LtFt-Left Front Aspect

ATTACHMENT 2 – VULNERABILITY/PK TABLES

LAV-CC

Catastrophic P _k Factors					Sub P _k Factors								Ammo Factors							
MILES	Front Belt	R Side Belt	Rear Belt	L Side Belt	FpK	MobK	ComK	A & E	B & F	C & G	D & H	I & M	J & N	K & O	L & P					
Code	Zone 1	Zone 2	Zone 3	Zone 4	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00					
00	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
01	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
02	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
03	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
04	80	80	80	80	1.00	1.00	1.25	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
05	10	10	10	10	0.02	1.10	0.02	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
06	TBD	TBD	TBD	TBD	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
07	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
08	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
09	90	90	90	90	0.50	0.50	1.20	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
10	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
11	NE	NE	NE	NE	---	---	---	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
12	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
13	95	95	95	95	0.50	1.00	1.10	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
14	40	40	40	40	2.00	1.00	2.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
15	90	90	90	90	0.50	1.00	1.20	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
16	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
17	95	95	95	95	0.50	1.00	1.10	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
18	95	95	95	95	0.50	1.00	1.10	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
19	20	20	20	20	0.50	2.00	4.00	1.00	2.50	3.34	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
20	30	30	30	30	1.00	1.00	4.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
21	25	25	25	25	1.00	1.00	1.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
22	30	30	30	30	0.50	1.00	4.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
23	25	25	25	25	0.50	0.50	5.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
24	2	2	2	2	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
25	NE	NE	NE	NE	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
26	NE	NE	NE	NE	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
27	NE	NE	NE	NE	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
28	NM	NM	NM	NM	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
29	NE	NE	NE	NE	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
30	OP	OP	OP	OP	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
31	NM	NM	NM	NM	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
32	NE	NE	NE	NE	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
33	NE	NE	NE	NE	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
34	NE	NE	NE	NE	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			

Legend: FpK-Firepower Kill
 MobK-Mobility Kill
 ComK-Commo Kill
 NE-No Effect
 NM-Near Miss
 OP-Optical Reset
 Ft-Front Aspect
 Rt-Right Aspect
 Rr-Rear Aspect
 Lt-Left Aspect
 RtFt-Right Front Aspect
 RtRr-Right Rear Aspect
 LtRr-Left Rear Aspect
 LtFt-Left Front Aspect

ATTACHMENT 2 – VULNERABILITY/PK TABLES

LAV-L

Catastrophic P _k Factors					Ammo Factors										
MILES Code	Front Belt	R Side Belt	Rear Belt	L Side Belt	FpK	MobK	ComK	A & E	B & F	C & G	D & H	I & M	J & N	K & O	L & P
00	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
01	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
02	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
03	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
04	80	80	80	80	1.00	1.00	1.25	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
05	10	10	10	10	0.02	1.10	0.02	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
06	TBD	TBD	TBD	TBD	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
07	100	100	100	100	1.00	1.00	1.00	1.00	1.25	1.00	1.00	1.00	1.00	1.00	
08	100	100	100	100	1.00	1.00	1.00	1.00	1.50	1.00	1.00	1.00	1.00	1.00	
09	90	90	90	90	0.50	0.50	1.20	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
10	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
11	NE	NE	NE	NE	---	---	---	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
12	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
13	95	95	95	95	0.50	1.00	1.10	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
14	40	40	40	40	2.00	1.00	2.50	1.00	2.00	1.00	1.00	1.00	1.00	1.00	
15	90	90	90	90	0.50	1.00	1.20	1.00	2.00	1.00	1.00	1.00	1.00	1.00	
16	100	100	100	100	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
17	95	95	95	95	0.50	1.00	1.10	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
18	95	95	95	95	0.50	1.00	1.10	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
19	20	20	20	20	0.50	2.00	4.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
20	30	30	30	30	1.00	2.50	3.34	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
21	25	25	25	25	1.00	1.00	4.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
22	30	30	30	30	1.00	1.00	1.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
23	25	25	25	25	0.50	1.00	4.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
24	2	2	2	2	0.50	0.50	5.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
25	NE	NE	NE	NE	---	---	---	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
26	NE	NE	NE	NE	OP	OP	OP	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
27	NE	NE	NE	NE	NM	NM	NM	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
28	NE	NE	NE	NE	NE	NE	NE	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
29	NE	NE	NE	NE	NE	NE	NE	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
30	NE	NE	NE	NE	NE	NE	NE	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
31	NE	NE	NE	NE	NE	NE	NE	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
32	NE	NE	NE	NE	NE	NE	NE	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
33	NE	NE	NE	NE	NE	NE	NE	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
34	NE	NE	NE	NE	NE	NE	NE	1.00	1.00	1.00	1.00	1.00	1.00	1.00	

Legend: FpK-Firepower Kill
 MobK-Mobility Kill
 ComK-Commo Kill
 NE-No Effect
 NM-Near Miss
 OP-Optical Reset
 Ft-Front Aspect
 Rt-Right Aspect
 Rr-Rear Aspect
 Lt-Left Aspect
 RtFt-Right Front Aspect
 RtRr-Right Rear Aspect
 LtRr-Left Rear Aspect
 LtFt-Left Front Aspect

ATTACHMENT 2 – VULNERABILITY/PK TABLES

Crew Served Weapon	
MILES Code	Probability of Kill
00	100%
01	100%
02	0%
03	0%
04	100%
05	100%
06	100%
07	0%
08	0%
09	100%
10	100%
11	100%
12	100%
13	100%
14	100%
15	100%
16	100%
17	100%
18	100%
19	100%
20	100%
21	100%
22	100%
23	100%
24	100%
25	0%
26	0%
27	100%
28	No Effect
29	Near Miss
30	Resurrect
31	No Effect
32	No Effect
33	No Effect
34	No Effect
35	Utility Code
36	Reset

ATTACHMENT 2 – VULNERABILITY/PK TABLES

Manworn					
MILES Code	Probability of Kill	* - 50% for Body Armor			
00	100%				
01	100%				
02	0%				
03	0%				
04	100%				
05	100%				
06	100%				
07	0%				
08	0%				
09	100%				
10	100%				
11	100%				
12	100%				
13	100%				
14	100%				
15	100%				
16	100%				
17	100%				
18	100%				
19	100%				
20	100%				
21	100%				
22	100%				
23	100%				
24	100%				
25	0%				
26	0%				
27	100% *				
28	No Effect				
29	Near Miss				
30	Resurrect				
31	No Effect				
32	No Effect				
33	No Effect				
34	No Effect				
35	Utility Code				
36	Reset				